The Journal
OF THE
Jamaica Agricultural Society.

The more people do the more they can do; he who does nothing renders himself incapable of doing anything; while we are executing one work we are preparing ourselves for undertaking another.

VOL. XVII. MAY, 1913. No. 5.

BOARD OF MANAGEMENT.

THE usual monthly meeting of the Board of Management of the Jamaica Agricultural Society was held at the office of the Society, No. 11 North Parade, Kingston, on Thursday, the 17th April, 1913, at 11.40 a.m. Present:—His Excellency Sir Wm. Henry Manning, K.C.M.G., C.B., presiding; Sir John Pringle, K.C.M.G.; Hons. Director of Agriculture, D. Campbell, George McGrath, H. T. Ronaldson, R. P. Simmonds, S. S. Stedman and J. R. Williams; Rev. W. T. Graham, Messrs. R. Craig, A. W. Douet, A. C. L. Martin, E. W. Muirhead, Conrad Watson, and the Secretary, John Barclay.

Sir John Pringle said he rose to extend the cordial welcome of the Board to His Excellency. When he became acquainted with the work of the Agricultural Society, he would find that there was great scope for such an institution in a country like Jamaica, and that it dealt with all subjects of an agricultural nature that arose from time to time.

The Governor said he thanked the vice-President and the members of the Board of Management, for their cordial welcome. From his experience in other countries and from the little he had seen since his arrival in Jamaica he could readily appreciate the great services which an institution such as the Jamaica Agricultural Society could do for a purely agricultural country. From what he had seen during his tour, a great deal could be done in working those districts in which the staple products of the country could not be grown. Those districts, although not valuable for staple products, would still be valuable for the growing of minor products. He spoke particularly of those districts which suffered from drought and unfavourable seasons. These districts, although not suited for the cultivation of such articles as bananas, cocoes or sugar, yet there were other products which, if carefully planted—if planted after a judicious enquiry had been made—would go a great way towards improving the prosperity of the island. Those were his views.

Minutes and confirmed. The Minutes of the previous meeting, having been printed and circulated were taken as read,

Neglected Juveniles The Rev. W. T. Graham gave notice that at the next meeting he would move the following resolution :

That having regard to the future interests of agriculture and of the general well being of this island, this Board respectfully draws the serious attention of the Government to the neglected condition of a large part of the juvenile population of this island, and particularly directs its attention to the fact that owing to the majority of such population being illegitimate, and are, for the most part deprived of the advantages of a settled home life and good parental training and influence, and as a consequence grow up without relish for work, or qualification or equipment for service of any kind, but become idlers and criminals in a great many cases—this Board, regarding the policy of neglect of any part of the juvenile population as suicidal to the well-being of the colony, strongly urges upon the Government the consideration of the necessity that exists for the constitution of some authority for dealing with the juvenile problem, and commends to it the study of the Hungarian system which has so successfully dealt with this problem, and indirectly with the adult pauper problem, that the juvenile pauper has ceased to exist –the aim and end of that system being the training of fit and capable people for the country's service and also the extinction of pauperism.

Matters arising out of previous minutes :—

(*a*) *Seed Relief.*

The Secretary submitted a tabulated statement showing the total quantities of seeds and plants sent to each parish for (1) Drought Relief, (2) Storm Relief. He was directed to publish this.

The Secretary explained that sudden calls were being made on him for large quantities of seeds and plants without notice, and it was not possible always to supply such demands promptly, seeing that nearly all native products were scarce at present.

(*b*) *S. Manchester and S. St. Elizabeth.*

C.S.O. Letters No. 3754-4507. 27th March, 1913. 4050-4822, 2nd April, 1913.

The Secretary stated that he had received a further grant of £25 and £10 from the Government for the purpose of procuring Cassava sticks and Congo peas for distribution in the districts of lower Westmoreland from Sav.-la-Mar to Negril, and for a supply of Corn and peas for distribution in Hanover. Cassava sticks were exceedingly scarce, but now that the Longville Factory—so he was informed—was to be shut down, perhaps it would be possible to get some cassava sticks there.

The Governor suggested that the matter be sent on to the Colonial Secretary, when it would be referred to Mr. F. N. Isaacs, who was in charge of the distressed districts, and who would be asked to state what sum would be required in order to supply these districts with cassava sticks.

The suggestion was adopted.

The Secretary stated that he had only returned to town on Wednesday of last week, and although his report of the special committee on Southern Manchester and St. Elizabeth had been prepared, there had not been time to circulate it amongst the members of the committee for their perusal and revision. He hoped the report would be ready for next meeting.

(*c*) *Cotton : Motion by Mr. Watson.*

Mr. Watson moved the following motion, notice of which he had given at the previous meeting :—

That in view of the strong opinion expressed by the Entomologist of the Imperial Department of Agriculture of the risk attached to the importation of cotton seed from Cuba, this Board is of the opinion that such importation should be prohibited, and that this resolution be forwarded to the Colonial Secretary, with a copy of Mr. Ballou's opinion.

Mr. Muirhead seconded.

The Director of Agriculture said that the Entomologist at Barbados was writing for planters and not for technical scientists, when he urged the total prohibition of seed from countries where the boll weevil existed. It was quite possible to safeguard such seeds, and he had submitted a course of procedure to the Government, which His Excellency had considered adequate for dealing with the consignment of Cauto Tree Cotton Seed. Prohibition was largely based on sentimental ideas, and not on practical facts. For instance, large steamers with hundreds of bales of cotton on board from weevil countries, came alongside frequently in Kingston harbour. To prohibit these vessels from calling would be to stop trade, enormously in excess of cotton in value. There was also the personal element. A gentleman from Cuba recently called at his office and produced some seed cotton in an envelope from his pocket. How could such a form of introduction be checked ? He had several plants of Cauto Tree Cotton growing at Hope, and if the plants gave promise of the large yields reported, he would propagate the variety and send seed to be tested in those parts of the island where Sea Island Cotton was not grown. He was informed that there was an unlimited market for this cotton, and that it gave three or four times the yield of Sea Island Cotton, and was a perennial plant, and very cheaply cultivated and immune to disease. If it proved to be as represented, it should prove a valuable plant in some parts of Jamaica where Sea Island Cotton was a commercial failure.

Mr. Watson asked leave to read the following memorandum re the cotton industry here, as follows :—

Just before 1907, a Cotton Company was formed to grow cotton in Jamaica, but failed, as the attempt was on too large a scale to succeed without any previous knowledge of the industry.

In January of that year I was nominated by Sir Daniel Morris, who was then Imperial Commissioner of Agriculture, to grow cotton for a Syndicate composed of Lord Dudley, Sir Alfred Jones, and others, but owing to the unsettled state of things after the earthquake, the matter dropped, and Lord Dudley appointed me his attorney, principally to establish cotton on his property of New Yarmouth, and it was thought that

holders of land in that locality would plant cotton when they found there was some one with a knowledge of the industry to advise them, but unfortunately they were so disheartened by their previous failure, that they would not try the cultivation again.

My advice to the Government was not to persuade the settlers to grow cotton before a large cultivation had been found to succeed, but to establish experimental plots.

No difficulty was found in following the first portion of my advice, but no plots were established until 1909, and from the plots no reliable data have been obtained.

I grew 60 acres of cotton in 1907, and have grown 90 acres every year since.

In 1908 Mr. E. Anderson grew about 30 acres, and has continued to grow cotton up to the present.

A year or two after, small settlers in Mr. Anderson's district, following his example, and being provided by him with seeds, grew cotton, and every year the cultivation has increased.

In January, 1909, a committee was appointed to report on the industry, but before the Committee met the matter was discussed by the Board of Management of the Agricultural Society, and it was published that cotton could not be profitably grown in Jamaica.

Together with that decision, a grant of £10 was made to establith the industry, and this led to the British Cotton Growing Association writing to compliment the Board on its generosity in granting that amount, although satisfied that cotton could not be successfully grown, and the Association supplemented the vote by a grant of £15, thus placing £25 at the disposal of the Board of Management. A portion of this amount was used to establish the plots recommended in 1907.

In the report of the Director of Agriculture, Official Gazette 2 Sept., 1909, he made the following statement referring to cotton: "This again I would add to the Index Expurgatorious of economic crops for Jamaica. The conditons of climate and season are so erratic that cotton cultivation is one of the most speculative and uncertain agricultural enterprises ever attempted in Jamaica."

It was probably due to this statement that nothing more was heard about cotton until the end of 1911, when it was decided to appoint an Instructor who would study the cultivation of cotton at New Yarmouth during that season, so as to be available the following year.

There was some difficulty in getting a suitable man in time, and the matter dropped.

In 1912 the conditions of the dry districts in St. Elizabeth were brought prominently before the public, and a grant of £50 was made to Mr. Eric Anderson to help in establishing 50 acres of cotton in that parish, as an object lesson, but the rains came late, and Mr. Anderson wisely decided not to start under such conditions.

The industry, up to this date, had run itself, but the time has come, when through lack of timely advice to small settlers, and their ignorance of the requirements of the industry, its future is threatened. I have visited the fields in lower Vere, and the *Gleaner* is correct in stating that "The trees in the fields are of different varieties and healthy, and diseased plants grow side by side."

The diseased plants are chiefly plants which have been carried from year to year, and are covered with the Leaf Blister Mite.

Were it not a serious matter, it would be amusing to think of Mr. Anderson's suggesting remedies for the deplorable conditions brought about by himself. He planted Caravonica as well as Sea Island Cotton from the start, and has been distributing seed ever since. An offer from him to distribute seeds, Caravonica and Sea Island, will be found in the *Agricultural Journal* of November 1911, and I cannot understand his stating that the present mixture was caused by the great demand for seed for planting the crop now being reaped. Where did the growers

get Caravonica from ? They must have got them from cotton ginned the previous year, and so every previous year look to first planting ratoons. Caravonica cotton plants are now to be seen in the fields.

When it is known that the cross pollination of a field of cotton is from 20 to 40 per cent, the state of the fields in lower Vere may be imagined.

Cotton which I bought from that district from crop 1911-12, was so mixed with Caravonica and hybrids, that to remedy the evil I offered to give Mr. Anderson pure seed for planting in exchange for his. He obtained 14 large bags, but when he sent for more I had already shipped all.

There is no seed selection in its proper sense practised in Jamaica. I have only been able to keep the best seed from the best fields, and frequently import selected seeds from Barbados at sixpence per pound.

Mr. Anderson has allowed cotton to run from one year to another, and the settlers have followed his example.

I do not recommend either control or compulsion. An instructor with a little tact, who will give the grower an insight into the requirements of the spinners, will do far more good.

I suggest that the instructor of the parish should take up the matter, and I would willingly give him advice from time to time should he require it.

His Excellency said he had had considerable experience with regard to the growing of cotton elsewhere, and he had seen some of the cotton as grown here since his arrival in the island. In Nyasaland he had appointed a committee to enquire into the manner in which the seeds were selected. He had got the planters together, and he had an opportunity of ascertaining how they selected the seeds ; and he had only found one planter who had thoroughly selected his seeds. Unless there was a careful selection of the seeds, it would be most detrimental to the industry. The cultivation of cotton in the dry districts would be a splendid thing, but it was absolutely necessary to have a careful selection of the seeds. The Agricultural Department should look after this here. And it would be necessary for the cotton plants to be destroyed after the crop of cotton was picked.

The Secretary stated that at the previous meeting a letter was read, asking that cotton be brought under the provisions of the Infectious Diseases of Plants Act, so that power could be taken to compel the destruction of old or diseased plants, but the Director of Agriculture stated it would require a special amendment to do that.

The Governor said that if a special law was needed it should be attended to, and he would see to this.

The Secretary was instructed to bring the matter of prohibiting the importation of seed from Cuba, and the advisability of legislation to prevent ratooning and secure the destruction of diseased plants before the Government.

Cotton Growing in School Gardens.

The Secretary submitted the report on the quality of the cotton grown in School Gardens, as judged by Mr. Watson. The Secretary said that besides offering prizes for the best plots of cotton grown in School Gardens, they had offered a special prize of 10/ for the best sample of cotton grown in those plots. The best samples were as follows :—(1) Portland, Vere School, (2) Gravel Hill

School; Milk River, (3) Providence School, St. Andrew, (4) Shortwood School, St. Andrew ; Ballards Valley, St. Elizabeth ; Stewart Town, Trelawny ; and Kitson Town, St. Catherine, about equal. He was directed to pay the prize and publish the results in the JOURNAL.

The following letters from the C.S.O. were submitted :—

(*a*) *Society's Grant.*

No. 3872-4136 29th March, 1913.

With reference to your letter No. 6702, dated the 13th instant, I am directed to acquaint you, for the information of the Jamaica Agricultural Society, that the Governor has approved of the Estimates of the Society for the year 1913 14, a print of which was submitted with your letter, and that on the basis of such printed Estimates as varied by the terms of your letter, His Excellency approved of £5000 being proposed to the Legislative Council as the grant to the Society for the coming year.—(Sgd.) P. C. CORK, Colonial Secretary.

b Free Railway Carriage of Fungicides.

No. 3488-3027. 20th March, 1913.

I am directed by the Governor to acknowledge the receipt of your letter No. 6189 dated the 21st ultimo, and in reply to ask that you will be so good as to inform the Jamaica Agricultural Society that His Excellency is not prepared to comply with the request made that Lime, together with all Insecticides and Fungicides, should be conveyed free of charge on the Jamaica Government Railway.—(Sgd.) P. C. CORK, Colonial Secretary.

Mr. Stedman said he did not think the matter should be allowed to rest there. Lime was carried free on the railway for use of fields that had banana diseases, and he did not see why a similar concession should not be given to help the young industry of cotton.

Mr. Watson explained how necessary lime was for use with Paris Green as an insecticide,

The Governor suggested that the matter might be referred back to the Colonial Secretary, and the secretary was instructed to do so.

(*c*) *Grants for Seeds.*

The Secretary said that further grants of £25 and £10 had been made by the Government for the supply of seeds and plants, more especially cassava sticks and Congo peas, to the dry districts of Westmoreland and Hanover.

(C. S. O. Letters Nos. 4050-4822 of 2/4/13 and Nos. 3586-4515 of 25/3/13

(*d*) *Imperial Bureau of Entomology. S. S. Circular.*

No. 3999-22.2,13. 2nd, April, 1913,

"I am directed by the Governor to inform you that the Secretary of State for the Colonies has requested that copies of all reports &c., published by this Government which deal with entomology, whether in relation to agricultural, medical or veterinary work may be sent as soon as they are issued to Mr. G. A. K. Marshall, Director of the Imperial Bureau of Entomology at the British Museum, (Natural History) Cromwell Road, London S. W.

2. Mr. Harcourt states that it is important that such publications should reach the Bureau at the earliest possible date after issue and that the best course is for them to be sent direct to Mr. Marshall. I am to request that you will be so good as to take the necessary steps to ensure that Mr. Harcourt's instructions are complied with so far as the Jamaica Agricultural Society is concerned."—(Sgd.) P. C. Cork, Colonial Secretary.

The Secretary was instructed to send a copy of the JOURNAL monthly.

The Governor asked who did the entomological work of the colony. The Director of Agriculture replied that there was no Entomologist attached to his Department but it was desirable that as soon as the finances of the colony permitted, the recommendation of the Agricultural Society that the services of such an officer be obtained should be acted upon.

Mr. Craig said he hoped the Governor would allow the matter to be reopened. The Society had made representations as to the necessity of having an Entomologist and if possible one also with a knowledge of Ornithology.

The Governor said he regarded an Entomologist as one of the most important aids in the field of agriculture and science and he would like to see the colony have such a man.

After further discussion unanimously in favour of the desirability of having an Entomologist, the Secretary was instructed to re-submit the recommendations of the Society to the Government.

(*e*) *Authorized Persons.*

No. 4526-4728. 14th April, 1913.

"I am directed by the Governor to acknowledge the receipt of your letter No. 6793 dated the 22nd Ultimo, on the question of payment of "Authorized Persons" under Law 4 of 1909 and suggesting that such persons should be placed under the control of the Inspector General of Police, and I am to inform you in reply that your letter is receiving consideration."—(Sgd.) Robt. Johnstone, Assistant Colonial Secretary.

Mr. Muirhead said he had been informed that an "Authorized Person could only arrest on suspicion of praedial larceny, but as soon as it was known that the articles had been actually stolen, the district or ordinary constable stepped in and got the glory and the pay the "Authorized Person" being put aside. If this were true it would not tend to make the "Authorized Persons" very energetic.

A discussion ensued in which Mr. McGrath held that the "Authorized Persons" received no proper instructions in their duties and had no responsible head. The Secretary stated that the scheme for the appointment of these Authorized Persons was new and that it naturally would take time before it was properly understood what they should do with the Law, and that it was the duty of the Inspector General's Department to see that the men were properly instructed.

The Governor asked how long the "Authorized Persons" had been in existence and whether a circular of instruction was issued to them, and whether they could read or write.

The Secretary replied that the scheme had only been in operation two years, the Inspector General's Department issued a circular of instructions, and practically all the "Authorised Persons" could read and write.

The Governor said that the "Authorized Persons should be properly instructed in their duties and these should be clearly defined so as to prevent any disputes between themselves and the police. Suggestions to this effect should be sent to the Colonial Secretary.

Live Stock Committee.

The Secretary submitted the following interim report from the Live Stock Committee :—

A meeting of the Live Stock Committee of the Jamaica Agricultural Society and other members of the Board interested in stock breeding, was held on Wednesday last at 10 a.m. ; and at 11 a.m. breeders of live stock were invited to attend, to assist in the consideration of the question of the registration of stallions.

Present :—Sir John Pringle, K.C.M.G., presiding ; Hon. J. R. Williams, Messrs. R. Craig, A. W. Douet, A. C. L. Martin and Ernest Verley.

Letters from the Director of Agriculture and Mr. Stafford Maxwell expressing their views were submitted.

The Committee reported that :—

(1) With regard to the amendments of the Contagious Diseases Animals Law of 1909, submitted to the Board by the Government for their observation, and referred to this Committee—they cannot recommend the Board to approve of the few small amendments, which in their opinion do not meet the requirements. The Committee, at the request of the Board of Management, have already made a recast of the Contagious Diseases Animals Law of 1909, with the object of simplifying the working of the Law, and making it more workable and useful. This amended Law was approved by the Board of Management at the November meeting, and sent on to the Government on the 11th of December 1912. The Committee recommend the Board to refer the Government to its suggested amendments, and ask whether there is any intention of giving effect to the revisions contained therein.

(2) With respect to the matter of the Entire Horses Law and the Registration of Stallions, the committee recommend a repeal of the Entire Horses Tax Law 36 of 1908, and the passing of a measure which will tend to prevent further deterioration and to improve the island breeds of horsekind.

It is suggested :—

(a) That such a measure should prohibit any stallion from being used for service, or be permitted to remain entire—which is unsound from hereditary disease, or lacking in quality or approved type or form.

(b) This implies a thorough Government inspection in the first place, by a qualified Veterinary Surgeon, or Surgeons, as to soundness in wind, limb and constitution, and freedom from hereditary disease—also in the second place, by a competent judge or judges as to type, conformation, and freedom from the defects of either.

(c) The granting of a certificate of soundness and proper type would depend on the decisions of both Veterinary Surgeons and judges, and a stallion passing both examinations would be entitled to registration, and to a license to serve up to a given period, renewable annually on re-examination as to soundness, and freedom from hereditary disease, such stallion should be examined annually from three years till six years of age, inclusive. and again at eight years, when if still sound, a life license to serve should be granted.

(d) On the condemnation of any stallion of three years old and upwards from disease or defects, by either veterinary surgeons, or judges, or both, an order should be issued for the castration of the animal within a certain period, and proof should be demanded that the operation had been duly performed.

(e) This order should not apply to costly animals purchased, or imported for racing purposes—in good faith—though unsound—or which had developed unsoundness after purchase, say for two years after a Law came into operation, on condition however, that these unsound stallions were not used for service of mares.

(f) A registration fee of 1/ should be charged to be paid to the Collector of Taxes, who would keep a parish register of the horses licensed to serve.

(g) The penalty for breach of the Law in permitting services by an uncertified stallion should be 40/ for each offence.

(h) A modification of Law 26 V., Section chapter 3 which was in force up to 1886 might be adopted.

Mr. Craig said the report was an interim one and he would move that it be sent back to the Committee for further consideration.

This was agreed to.

Journal. The Secretary said three tenders had been submitted for the printing of the JOURNAL, and the Journal Committee recommended the acceptance of Messrs. M. DeSouza & Co., as the lowest.—Agreed.

New Local Societies. The following local Societies applied for affiliation :—Moore Town (Portland), Croft's Hill (Clarendon), Albion Mountain (St. Mary), Baxter" Mountain (St. Mary and Blackhill (Portland).

Mr. Craig moved that these be referred to the Instructors' Committee for enquiry as to the need for them in the districts. Some of these local Societies he held were being started too near each other, and he would further move that in future, all applications for affiliation referred to the Instructors' Committee first for enquiry.—Agreed.

Instructors. The usual monthly Reports and Itineraries of the Instructors were submitted and referred as usual to the Instructors Committee.

The Secretary reported that a suggestion had been submitted to the Instructors Committee by an Instructor that books and bulletins etc., on agricultural subjects should be supplied to the In-

structors so that they might be able to keep in touch with the latest knowledge on the industries this Island is interested in. The Instructors Committee considered the idea good and recommended that a grant of £5 be made to start a Travelling Library.

Toronto Exhibition. Mr. Muirhead asked leave to submit notice of motion as follows :—

"That this society learns with regret that the necessity arose for the Legislative Council to strike out the amount for the grant for the Toronto Exhibition, but trusts that the Council will reconsider the matter and yet be able to give a sum of money to enable Jamaica to be represented."

Wheel Tax. Mr. Craig begged to bring the following to the notice of the Board. On the representation of this Society last year, the Government agreed to a recommendation of the Society to reduce the wheel tax 50 per cent. on tyres 4 inches in width and over. He had, however, not been allowed the reduction on his broad tyres, and had received a letter from the local collector of Taxes, in which that officer referring to instructions he had received from the Collector General, said : "I now forward you extract from the orders sent us.

"The refund is to be made for each period of three months continuous use, and is to be at the rate of one eighth of the yearly tax for each such period, or at the rate of 50 per cent of the whole tax paid.

"Applications for refund should be made in writing, setting out the facts, which should be verified by the Collector who will submit certificate for approval."

This, continued Mr. Craig, was an excellent example of how not to do a thing, and he suggested that the Colonial Secretary should be written to in the matter.

The Hon. R. P. Simmonds said his experience was similar to that of Mr. Craig ; and he also urged that the system be altered.

The Governor suggested that Mr. Craig should hand in the letter he had received from the Collector of Taxes, and the Society could forward it to the Colonial Secretary with their recommendations.

This was agreed to.

New Members. The following were elected :—J. A, Simonds, 208 Winthrop Avenue, New Haven, Conn., U.S.A. ; Rev. A. L. Bodfish, Watsons Hill ; Dr. W. D, Farquharson, Christiana ; M. G. Kidston, Greenwood, Falmouth.

The meeting adjourned to Thursday, 15th May, 1913, at 11.40 a. m.

FUNGOID DISEASES OF PLANTS.

By Wm. Cradwick.

The majority of cultivators including some at least of the larger and most successful in Jamaica are very undecided as to what is meant by a plant disease. Some going so far as to assert that there is no such thing, and that when plants die it is simply due to the fact that the planter has attempted to grow it in unsuitable soil, too wet, too dry, too hard, too soft, too rich, too poor or too something, and if this belief is only reiterated in a sufficiently assertive manner and often enough it is astonishing how many people can be got to believe it. For instance it has been repeatedly stated that what is known as "Panama Disease" of bananas is simply due to "bad forking," "too much forking," "want of forking," "want of drainage," "over draining," "want of cultivation," etc. The latter is sufficiently ambiguous certainly to require the proverbial Philadelphia Lawyer to controvert it, the other reasons set forth have not even that merit.

A plant disease may be shortly described, and is by all who have any knowledge of the subject, accepted as something that with a proper knowledge of the life history of the plant, can be prevented. A plant disease can in no case be caused by unsuitable soil or errors in the cultivation, but there are few diseases which are not made worse by unsuitable soil or atmospheric conditions. Many plant diseases, however, are the more deadly when conditions of soil and climate are the most favourable for the successful growth of the plant attacked. For instance, "Panama Disease" is far more deadly when the soil is deep, and rich in plant food, and both soil and atmosphere are kept in such moist condition that the banana grows and if it were not for the presence of the deadly disease, would produce the finest bananas in the world. While in soil poor and gravelly, "ridgey" where the bananas simply exist, and if fruiting produce bunches of five to six hands, the "Panama Disease" spreads very very slowly, the same being equally true of swampy land, which would if drained, grow good bananas, provided it did not become infected with the spores of "Panama" or some other fungus inimical to the banana.

What then is a plant disease? The most common form of plant disease is some species of fungus (which is itself a plant) growing on and in the plant, which we desire to grow for food or some other economic purpose. This fungus having obtained an entrance, usually by the help of some other agency, grows in and through the stems, roots, fruits or flowers, according to which it finds best suited for the needs of its own existence, and kills them.

No fungus is capable of taking directly, matter from soil, air and water and converting it into food for its own use, but is entirely dependent on some other plant to do this for it, and depends for its existence on its capabilities of robbing the plant of the food already prepared. The less harmful fungi live on dead trees, etc.

Some fungus diseases attack the host plants through the stem, frequently through the young growing points, the bark there is more easily damaged by wind, insects and other agencies, and the spores of the fungi more readily find an entrance there, is found too a great abundance of plant food ready for the use of the pest which insures its rapid growth.

Other diseases attack the plants through the roots, and from these make their way into the other vegetative parts of the host.

A good illustration of a plant disease is the mould (fungus) which grows on our boots or clothes in damp weather, Oh, says the sceptic, that is exactly what I told you : it is the damp weather that rots the boots, and it is the water that kills the plants. And yet, oh sceptic, the wet weather may go on as long as it likes, and if you rub a little grease on your boots, there is no mould or fungus growing thereon. Of course, says he, " keep the water out." And yet if the weather is dry you can soak those same boots with water every day and there is no mould or fungus growth, which proves, except to the fool, who is of the same opinion still, whatever happens, that it is not the water which makes the mould, but that the mould is there all the time, and requires the proper amount of moisture for the proper length of time to give it a start and enable it to " rot" your boots.

In bygone days, not so very far bygone, all diseases of plants were ascribed to "visitations," "blights," "plagues," etc. A history of Jamaica asserts that the cocoa cultivations were destroyed by a "Blast." No doubt these phenomena of both ancient and modern history are attributable to some specific plant disease, and therefore with proper measures preventable.

It is an axiom that the larger the area of any particular plant under cultivation in one locality, the more liable is that plant to destructive diseases, fungus or bacterial growths, or the attacks of destructive insects, the explanation being that the plant destroyed (the host) furnishes food in abundance for the destructive fungi, etc. In Jamaica and other countries where large areas of woodland are cut down for the purpose of cultivation, there is always great risk of some hitherto harmless fungus finding a suitable host on the newly introduced plant, a fungus which has previously existed comfortably on Bastard Cabbage or other trees may find banana roots and stems much more agreeable food and take to it so kindly as to destroy the banana plant entirely. One of the best banana planters in St. Mary is of the opinion that Bastard Cabbage stumps "poison" bananas.

One of the commonest errors of planters is to ascribe everything to damp. Must be the damp says Mr. PP. It is only since the rains came that the plants commenced to go back. I pulled them through the drought all right.

Alternate spells of wet and dry weather undoubtedly accelerate the deadly work of plant diseases, at the same time often puzzling the PP, very much. The explanation is that unless the drought is severe, the active growth of the plant uses practically all the plant

food is it, while the dry atmosphere and strong sunlight not being suitable for the growth of the fungus pest, it gets so small a proportion of plant food that its presence is not noticeably harmful. But given a wet spell, such as we usually experience in Jamaica in November and December, which also means cold weather, the growth of the host plant is checked, it does not use the plant food which it has stored up during the more favourable weather, the fungus (disease) at once seizes it and its growth being enormously stimulated thereby, fills up all the cells of the plant, particularly those near the tips of the stems and branches with its own growth and soon severely checks the growth of, or kills, the host plant.

For instance, if bananas, tobacco, tomatoes, or Commander Cocoes (Colocasia) are planted in a disease infected field, the young plants may grow very luxuriantly for a time, and each shower of rain will put on a very encouraging spurt of growth, until one morning many or all of the plants have the appearance of suddenly having got tired, in the case of bananas affected with "Panama Disease" and tomatoes affected with "Sleeping Disease," the collapse is brought about by their being absolutely filled up with the growth (Mycelium) of a fungus (Fusarium Sp) in the tobacco and cocoes with that of other fungi (Peronospora and Thielavia).

These diseases are good illustrations of the class which infect the soil and enter the plants through the roots. And woe be to the grower of either of these crops who gets his best land infected with them. Destruction of the infected plants and abstentation from replanting with the same kind of plant is his wisest course.

In the early days of tomato disease in England, which I well remember, plants were put time after time into infected soil, and grew luxuriantly for a time until the deadly disease (Fusarius) developed again, and then in a few days the plants looked as though they had been struck by lightning.

Much time, thought and money have been expended in the endeavour to discover the best means of fighting plant diseases in Europe and America, and much valuable information is now available. But all the information points to the absolute necessity for preventive rather than curative measures. Next probably in importance is the now well demonstrable fact that a disease which affects one kind of plant as a rule, does not affect other kinds, even though they be about of the same kind. For instance, if the "Panama Disease" of bananas affects a plant of our Jamaica bananas and the affected plant is dug out, a plant of the Chinese banana can be planted in the same hole without any special preparation, and will grow as well as the Jamaica banana did previous to its being attacked by the disease, but if a fresh plant of the Jamaica banana is planted in the same hole, the fungus immediately attacks it, and apparently much more vigorously than before, and kills it before it can produce fruit. [redacted]

Commander Cocoes (Colocasia Spa.) is very subject to a stem disease (Poronospora, locally Saltpetre, Black Rotten, etc.) which usually attacks what is known locally as the head (the true stem)

and it is well known that land which has grown Commander Cocoes which have become diseased, will never again produce healthy commander cocoes, but other varieties (Sally Minty etc.) can be grown on the land, and remain quite healthy for years, another proof that usually one kind of disease does not attack even closely related varieties of plants, but is confined to one kind only. This rule is not universal, however, and there is always the risk of one disease finding another plant agreeable food.

Fungoid diseases of plants are spread in two ways, by the scattering of spores by wind, by being carried in the earth, on dead leaves, branches, etc., and in manure, or by the vegetative parts being carried from one spot to another, or from one plant to another.

The spores may be roughly likened to the seeds of a plant the common puff ball, junjah or fungus of our pasture and woodlands in Jamaica affords a good example of this, if you break open one of these when it is ripe or full, it will be seen that they are full of exceedingly fine brown dust, which is the spores or seeds. However minute the fungus may be, the spores or seeds are present just the same, and in the case of those destructive to our useful plants, must be looked upon as the most dangerous element in the distribution of this class of diseases from one plant to another, from one cultivation to another, or from one country to another. There seems to be practically no limit to the power of these spores to lie dormant, in the earth especially, and one of the greatest risks in taking plants from one country to another lies in the fact that it is possible to carry the spores of a destructive plant disease from one country to another in earth or plant material.

For instance, the Chinese banana, or other variety grown in a field where "Jamaica" bananas (Martinique) had been attacked by "Panama Disease," if transplanted to a healthy field of Jamaica bananas, might easily be the means of carrying the spores in particles of earth, etc., and by this means infecting the hitherto healthy bananas with "Panama Disease."

Some plant diseases require more than one plant to live on, in order to reproduce themselves, many which attack the leaves, stems, etc., of plants are capable of maturing in the soil and again attacking the plants from there.

Many diseases are capable of remaining in the soil for very long periods (many years) and if no plant of the kind which they are bound to have to feed on is grown there, they lie dormant for many years ; but if plants which are suitable for them to grow (feed) on are planted in the soil containing them, they again attack them, even although this may be after a period of several years. This accounts for land where bananas, tomatoes, tobacco, cocoes, etc., have once been attacked, earning the reputation unjustly of being bad land for the crops mentioned, when, as a matter of fact, the soil may be perfectly good, but on account of being infected with the spores (known as resting spores) or seeds of the fungoid diseases,

which will grow and attack even after many years the plant which is a suitable host, it is impossible to grow the plant on that soil successfully.

The danger of the spread of fungoid diseases by the vegetative parts being transported from one plant to another, consists of, firstly, by the infection of tools. A fork, spade, plough, hoe or cutlass used in cultivating a plant suffering from a root or stem disease can carry both spores and the vegetative parts of the fungus from one part of a field to another, and from one plant to another, a hoe or cutlass used in cleaning or pruning a field of bananas, cocoes, or Irish potatoes, would of course be liable to carry particles of earth from an infected plant to a healthy plant, but there is much more risk of spreading the infection by carrying the vegetative part of the fungus (which may be likened to the stems of and branches of trees and plants) from one plant to another.

There is no doubt that the disease of cocoes called "Black Head" or Saltpetre, which also attacks yams, is very largely spread by cutting diseased "heads" and healthy "heads" with the same knife. The knife passes through the diseased "head" some of the parts of the fungus causing the disease stick to the knife come off on the healthy head and stick on to it and grow there. The practice, too, of leaving heads of bananas or cocoes in large heaps in which diseased heads are present also helps largely to spread the disease.

In my next paper I propose to treat on some of the common diseases of plants in Jamaica, and give practical suggestions of simple methods of fighting them.

I must, however, warn your readers that there is no extraordinary method of combating diseases of plants, prevention rather than cure must be looked for, and this is usually only possible by laborious and troublesome if simple measures, and it is long on record that washing in Jordan was never popular.

CAMBRIDGE-WOODFORD SHOW.

Cambridge-Woodford is a district in the Port Royal Mountains, lying between Newcastle and Stony Hill to name two places that are well known. It is much higher than Stony Hill though not so high as Newcastle.

They did not suffer much from the storm of November. there, although they suffered a good deal from drought a most exceptional thing. This is a large vegetable growing district. The growing of vegetables for the Kingston market is the chief dependence of the people, the climate being excellently suitable. Two years ago they held their first show and this was their second venture. In spite of the wet weather of the previous day, the inclement appearance of the weather on the morning of the Show which interfered with the attendance, and the hard times generally, the Show was quite a success. The exhibits were quite equal to the first show but not so

plentiful. Prizes were also offered for stock. The total amount of Prizes paid was £25 13s. 0d. There is now no other show fixed until November. We trust, however, that the seasons will be so good this year, that next year the usual interesting Agricultural Shows will be held all over the Island.

Stony Hill Branch have decided to hold their first Agricultural Show in December.

ENSILAGE.

All kinds of live stock eat silage readily and often prefer it to hay. But the grass must be cut while it is still young, and fresh and succulent. Rain falling on it is no drawback. Wet grass only squeezes more closely together, whilst dry and strong grass may heat to an injurious degree. Some farmers only start to make ailage when it is too late. Half-made hay or straw will not make silage. It is too open process. Moreover, it must be emphasized that good ensilage cannot be made from spoiled hay or weeds or vegetable refuse.

It is strange that more farmers do not build stack silos. For stack enslige any grass may be used, but the most valuable silage is made from maize, kaffir corn, millets, cow peas, etc. Success in making stack ensilage depends mainly upon having a sufficient quantity of fodder to ensure proper heating, and at the same time to avoid as far as possible the waste that always occurs at the exposed surface of the stack. By making the stack higher and thicker the percentage of loss may be lessened. The advantage of making stack silage is that the stack can be built in any paddock handy for feeding purposes. The stack should be erected on a level, well-drained site and sheltered from strong winds. It should not be placed near the milking shed, as the milk may become tainted with the odour set up by the heating of the stack. The stack should be nearly square and the sides somewhat higher than the centre, dipping inwards. The whole will become level when any weight is applied. The least amount of fodder which can be profitably preserved in a stack silo is 25 tons. This should be set out so as to cover a space of 14 feet by 14 feet. A derrick or hoist saves much time in lifting the material on the stack. Pressure can be added or removed with but little labour. There are certain disadvantages to stack ensilage. The decay around the sides of the stack is often considerable. It is liable to be injured by rain unless well thatched, or it may be attacked by vermin or blown over by a heavy gale of wind.

In building a stack silo the first layer of, say, from 6 to 8 feet should be laid down at once to ensure the requisite heat, that is about 130° F. It will then be sufficient to add a layer of about 3 feet each day. It must be remembered that the whole art of ensilage-making is, *firstly, the exclusion of the air, and, secondly, the regulation of heat by pressure properly applied.* The best silage is made by delaying the maximum pressure until the temperature has risen to be-

tween 120° F. and 150° F. A cubic foot of silage weighs from 45 lb. to 56 lb. Silage is greatly improved by the addition of salt in the proportion of 1½ lb. to 1 ton of the green material. The completed stack may be tapped by a platform of rough timber, provided with a ledge running around the edges. Formerly, weights and wire ropes were used, but it was found that the successive layers of green fodder afforded ample pressure. The only difficulty is with the top layer which is exposed to the air, but it may easily be covered over with planks of timber or old iron. A most important matter is the correct temperature. If the stack is built and weighted so quickly that it does not generate sufficient heat it will make "sour silage." This product has a pale, yellowish-green colour. On being exposed to the air, when cut out, it gives off a most penetrating and unpleasant odour, so much so as sometimes to be intolerable. But if the stack is allowed to gather heat—which it readily does if not built too quickly—the silage become a darker colour, and its smell when cut out is sweet and not at all unpleasant. To ensure this the heat should go up to 120° F., but it should not much exceed 160° F., or it will become very dark in colour and silky in smell. Over 180° F. it becomes almost black, and with still greater heat tindery and valueless. In England it is possible to obtain special stack thermometers, but an ordinary iron rod will suffice to take the temperature. This rod when inserted should become almost too hot to hold—even to a fairly horny hand—and that amount of heat will ensure the silage being sweet and the stack can then be weighted.

OTHER LANDS

GUINEA CORN—When one reads of the extent of other lands comprised in the British Empire, one hardly can grasp the idea of their vastness nor appreciate the area of good soil yet to be settled and produce food.

Rhodesia in South Central Africa, may become in the near future one of the important food exporting countries of the world. It is a vast territory covering an area of 750,000 square miles which is larger than Germany, France, Switzerland and Austria all put together.

The greatest product of the country is maize and in the near future there will be large exports of that grain. In 1907 the exports valued £95, in 1911 £16,878. So that when the United States consumes all its own corn as is probable before many years are past, there will be great exports from Rhodesia as well as South Africa in general. And Argentine is capable of immense development as a corn growing country also.

What we are interested in reading about Rhodesia is that the Kaffirs of Rhodesia while growing and living on corn (maize) as their chief dependence; also, owing to frequent droughts grow

Kaffir corn along with their maize (which is similar to our Guinea Corn and we have often grown it here) their object being to provide against the probable failure of the corn crop.

We have always advised, the people of Southern St. Elizabeth to grow Guinea Corn as well as country corn for the same reason. Dry weather which ruins the corn crop, does not affect Guinea Corn and we have had it growing on poor rocky land during prolonged droughts as in 1912 when there was a steady six months without rain.

CASSAVA FARINE.

Following up our remarks in last number re the making of Farine from Cassava as an economical industry, and the use of Farine as an economical and efficient food, we give the following experience :—

The cassava industry is one that interests me greatly. We have had some experience in the use of cassava foods in this institution, *unfortunately not as much* as we *would* wish, for the *simple* reason that the supply ran short. But for the few months that we had (1) Cassava meal and (2) Farine from Mrs. Fray's Spring Plain Factory, we were greatly pleased with both articles, and they were enjoyed in various forms by the inmates. I believe the Farine is what some foods of higher dietatic value *according to analysis*, do not prove to be, that is *easy of digestion.*

We use (1) Cassava meal for porridge, and dumplings, very satisfactorily ; and (2) Farine as a breakfast or supper food, eaten either softened in milk, or dry, like the patent food "Grapenuts" and "Force."

We have found that properly prepared and *sufficiently cooked*, the cassava products are excellent along with other ordinary foods. They make acceptable variety, and with a proper balance of meat and fats, are both palateable and nourishing.

We found the Farine the most digestible, as it is dehydrated and partially dextrinated starch, and quite suitable food for growing children as well as adults.

I earnestly hope that your project will be carried through as it deserves to be.

In time we will hope for banana meal, and Jamaica cornmeal not spasmodically—but regularly to be had.

. . . . . .

I can most certainly add to my letter that all the cassava foods we have used here at intervals extending over many years, whenever procurable, including the very creditable production from your Society (and what we have been able to grow and prepare for ourselves) have proved to our entire satisfaction their great value. I shall be very glad when it is possible to have a regular supply.

I have taught several of my friends to like the farine, and with some advertising and personal effort in making it known, there

ought to be ready sale for large quantities. Many people in this district are continually asking me where it is to be had, and when I will be likely to get some more. The crisp, nutty farine, requiring no cooking, and so attractive in appearance and taste, made quite a good reputation among those to whom I gave samples. If it can be sold fairly cheaply, there is a great future before it as far as I am able to judge.—(Miss) C. NUTTALL, Belmont Industrial School.

POULTRY NOTES.

Different people have different results not only in the hatching of eggs from the same hens, but more in the raising of the chickens. And if the eggs have been purchased the tendency is always to blame the eggs no matter whether as poor results are obtained from eggs from their own hens. The tendency, however, is to kill the more valuable chickens hatched from purchased eggs by kindness. We remember a case where two settings of eggs were taken from the same two dozen, set by two different people ; one had a hatch of 11 and the other solemnly brought back his dozen none of which had hatched, to have them replaced, as infertile. On breaking each egg every one was found to be rotten, and stinking, thus showing that each had been fertilized. It was hard to explain to the man the difference between infertile and fertile eggs and insist that the fault of the non-hatching lay in some way with his methods. It then suddenly occurred to us that it was a long time since these eggs had been obtained and on enquiry found he had kept the eggs *three weeks* before setting them as the hen he had intended to set on them had left the nest ; kept them too without ever turning them. *Of course, the germs were there but too weak to form chickens.* With old eggs too, even if chickens hatch, they will be weakly.

In another case reported to us recently 11 chickens hatched from 12 eggs supplied, were admitted to be active healthy chickens. But from three weeks old they began to pine and all died except two which grew up miserable stunted birds to be pointed out and remarked upon as specimens of So-andSo's breed.

Now if chickens hatch strong and active anything that happens to them after that, is the result of the owners' methods.

These birds were reported afterwards to have been fed on ground corn and oats, presumably whole oats. as unsuitable a food as could be given. Coarse oatmeal is a proper food but not oats. We could be almost certain that these chickens died of acute indigestion. We have had an experience of fifteen years here of thousands of similar cases. From the later result, the stunted growth, we could again be nearly certan that these suffered from roup, unnoticed, and which became chronic. No bird suffering from roup no matter how hearty it feeds will grow. We once had a cock sent us said to be 7 months old, and it was the size of a large blackbird. It had a

vile dose of chronic roup which, no doubt. had killed off all the rest of the breed (as the owner had only one left out of 10) and it had lived by reason of superior constitution.

* * *

Then many people who do not know much about the different breeds of poultry. appear in a great state when chicks hatched from the eggs of black breeds appear with all the underparts and the sides of the head white ; or the chickens of white breeds appear with black spots. The first covering of chicks is only down and when the feathers appear they will, under ordinary circumstances, come the regulation colour. But a fowl of a white breed may occasionally have a black feather and more often some birds in black breeds have a white wing or tail feather or part of a feather white. In 1912 many such appeared and we put it down (from experience in 1907 and 1897) to the lack of green food ; a form of anaemia. The late hatched chickens (August and September) in 1912 had no white feathers, and only those brought up in dry spots with no green food had white feathers.

A white wing feather or two may appear in Plymouth Rocks and does not mean they are not pure breed and a Black Plymouth Rock used very often to occur, and stubbs of feathers in the legs of Buff and Black Orpingtons, and Rhode Island Reds.

These were simply reversions to ancestors in the make up of these breeds.

* * *

Now-a-days breed does not go for so much as formerly. now there are as many breeds all composite in their make up, that is made from combinations of other breeds ; and when the blood of other breeds has been blended with the old breeds as is so often done now. Strain is of more account than breed. This has been proved in the great laying competitions held throughout the world of late years, especially in the Australian Colonies, latterly in the United Kingdom and last year and this year in the United States also. It is a curious thing that the first three pens in one competition in the United States are English competitors, in the other an English pen is at the head also, and that pen belonging to the same man as the topmost pen in the other, who, curiously, also owns the second pen in one English competition.

In these competitions almost all breeds have scored well both heavy and light breeds. but taking all in all White Leghorn have proved the most generally reliable as layers ; yet in the competition the lowest pens as well as the topmost pens are the same breed thus showing that the strain, that is the breeder, has most to do with it.

* * *

HINTS FOR THE SUMMER. FEEDING.—More Chickens die from over feeding than under feeding. The chickens should never have their crops stuffed full at any time. If dry rice is fed, only a

little at a time should be given. Many chickens are killed with rice, as they are allowed to fill their crops; then they drink water and every one knows how rice swells.

Little and often should be the motto when feeding young chickens.

Water.—Thousands of chickens die off in two or three days from drinking stagnant water left out in the sun. Put the water vessels in the shade and refill three times a day.

Roup.—Chickens sometimes take mild doses of roup or cold, when very young. Their eyes appear watery, and slight mucous appears at their nostrils. Small chickens cannot be treated like hens. Make a pink solution of permanganate of potash and water and dip the chickens' heads in it. Put a teaspoonful of Epsom Salts in a quart of water for the chickens to drink. Treat thus three days running.

INDIGESTION IN CHICKENS takes different forms:—When their crops are stuffed up and hard through eating unsuitable food, such as whole corn, or too much rice, it is hard to get rid of the contents by medicinal treatment but sometimes a half teaspoonful of sweet oil, and kneading the crop gently with the fingers morning and evening may enable the contents to pass. Another method is to give a teaspoonful of warm water with a small pinch of Bi-carbonate of soda in it. If these are not successful, the chicken will die, unless the owner is skilful enough to open the crop at the top with a pair of sharp scissors, empty the contents gently, and put a teaspoonful of Permanganate of Potash and water in to clean and disinfect, let this run out again, sew up the *outer* skin (there are two skins) keep separate and feed on milk for two days.

When the chickens appear huddled up but the crops are not stopped, this may be due to indigestion or it may be through getting a hard peck on the back of the head from a fowl. Give a dose of the warm water and Bi-carbonate of soda advised in the morning, follow an hour after with Epsom Salts and water) the merest pinch of the salts to a teaspoonful of warm water, dose morning and evening) and next day give a quarter of a teaspoonful of sweet oil. This treatment cures indigestion and mild liver troubles.

These doses are for young chickens a month to two months old.

CONTENTS OF CISTERNS.

To find the number of gallons contained in a cistern, multiply the length, width and depth together, all in feet. This will give the contents in cubic feet, which multiply by 6.24, and the product will be the number of gallons. If the dimensions are inches, use 0.003607 in place of 6.24. Two dimensions of a cistern being given to find the third, to contain a given number of gallons, multiply the required number of gallons by 0.16046, if the dimensions are in feet, or by 277.274, if the dimensions are in inches, and divide the result by the product of the two dimensions. The quotient will be the third dimension required.

COMMENTS.

BASKETS.—Basket-making is carried on in Central St. Elizabeth. There are many kinds of neat and hardy baskets made there. Tourists buy them readily. We have sent them often to Exhibitions and they were admired and purchased. There ought to be a good export trade for them. This only needs organization.

These baskets are made from the Palmetto or Bull Thatch palm. This thatch palm chiefly grows in swamps. There are other palms similar, as the Silver Thatch, which only grows in the driest parts. From these other articles are made—bed mats for instance. These are entirely different in growth from the plant from which the Panama or Jippi-Jappa hats are made.

The young leaf shoots of the Bull Thatch are cut and put into the sun for four days, then stripped ; they are then put again into the sun for two weeks, taken up again, and put into dew at nights for two nights. They are then put into the sun for about three hours to get a brilliant white colour.

Whenever the straw is going to be used, it must be put in the dew and allowed to remain until about mid-day. The trees usually give one leaf shoot per head monthly.

*
* *

TORONTO EXHIBITION.—The Grant to enable Jamaica to be represented at the Toronto Exhibition, which was £300 last year, was one of the items cut out of this year's estimates.

The Permanent Exhibition Committee put in another application for a reduced grant of £200, as they were very loth that Jamaica should not be represented this year, and so interrupt the continuity of the work of advertising Jamaica in Canada—its attractions as a tourist and health resort, its products from a trade point of view, and as a field for the investment of capital. This fortunately has been granted.

*
* *

THE "TROPICAL AGRICULTURIST."—The *Tropical Agriculturist*, hitherto the property of Messrs. A. M. & J. Ferguson, has been acquired by the Ceylon Agricultural Society who are now the sole owners of the Journal.

The *Tropical Agriculturist* is not a journal that can confine itself to chronicling the doings of the Ceylon Agricultural Society, and though the interests of the members of the Society and of Ceylon generally must come first, yet its responsibilities extend far beyond the limits of this Island ; embracing indeed the whole tropic world and much of the sub-tropic.

The *Tropical Agriculturist* was founded in 1881 by Mr. John Ferguson, C.M.G. In 1905 it became "The Magazine of the Ceylon Agricultural Society," the Director of the Royal Botanic Gar-

dens being appointed Editor, but the Society has never owned the Journal. It has acquired it by gradual steps ; a circumstance that enables us to look forward to the future with a confidence born of experience."

We congratulate the Ceylon Agricultural Society on their enterprize.

***

SECRETARY FOR AGRICULTURE U.S.A.—The New York *Tribune Farmer* says in its article on "The New Secretary", ;—

"After reading his biography, we must confess to a considerble feeling of disappointment. Professor Houston's qualifications are wholly academic. We would consider him a first class candidate for the head of an arts college, but we have failed to discover very much in his life history that in our opinion qualifies him to take up the work of this important post.

"The Secretaryship of Agriculture is too big a job and one which too vitally affects the great farming industry to have it administered by any one who has not the entire confidence of our farmers and who is not thoroughly familiar with the big problems in our present day agriculture. It involves the control of nearly thirteen thousand workers and the expenditure of nearly $20,000,000 of money, besides more or less supervision of the work being carried on in the various colleges and experiment stations in the States.

"There are a great many vital problems confronting the new Secretary. The greatest of all is a complete reorganization of the department with a lopping off of overlapping divisions and the elimination of millions of yards of useless red tape. The department has become too "scientific" and is expending too much of its energy in so-called investigations, which are of little practical value. A halt should be called on this type of work and a part of the energy of the department should be concentrated on such practical work as will quickly and directly tend to be of service to the great industry of farming.

"We are not passing judgment on the new Secretary of Agriculture before we know what he is going to do. We are simply saying that in our opinion his qualifications and his previous history are against him. He is not a farmer. He is not even an agricultural teacher or organizer who is well known and who has the confidence of farmers generally. If he succeeds, it will be in spite of, not because of, his qualifications. We wish him well, though we cannot feel that he is the best available man for the place."

***

Agricultural education and expert advice to farmers is given with a liberal hand by the Canadian Government, which is providing £2,000,000 for the purpose during the next few years.

For the coming year the British Government is allocating £325,000 for a similar purpose.

CORRESPONDENCE.

SWEET POTATOES AND CASSAVA.

We received lately from a correspondent some specimens of diseased cassava and sweet potatoes, which were forwarded by us to the Director of Agriculture. The following is the Report made on them by the Government Microbiologist :—

To the Director of Agriculture.

Report on Sweet Potato tubers and Cassava stems forwarded by the Secretary, Agricultural Society.

Source—Rev. A. L. Bodfish, Watson Hill P.O.

Sweet Potato tuber: Riddled by tunnels of the sweet potato weevil (Cylas formicarius Fabr). The larvae—white legless grubs with yellowish brown heads, the entirely white pupae and the metallic blue adult weevils with orange thorax long snout and elbowed antonnae were all present in the borings. The eggs are apparently laid on the surface of the tuber and the tunnels bored by the emerging larva. The latter pupates in the tunnel from which the adult escapes.

Some adults of the beetle called "Jacobs" (Cryptorhynchus batatae) were also observed on the tuber, but most damage was due to the weevil. The life cycle is gone through rapidly so that more than one generation may attack the same plant and even the same tuber.

Treatment: No direct measures can be taken as the insect lives mostly within the potato, only strong healthy slips should be planted quite free from borings, and the potatoes should be dug as soon as ripe. The slips should be raised in a nursery free from weevil and "Jacobs"; when this becomes infested it must be abandoned. Grow other crops for a year on badly infested land.

Cassava stems: Young twigs of cassava showing black and shrivelled rind in places. Fructifications of fungi were breaking through causing small pustules to appear and later cracks. The dark hyphae were numerous in the cortex and secondary bast but had not penetrated into the wood and pith. The disease appears to have started from the buds and leaf bases of the younger shoots and was spreading downwards in the living bark. Pyenidia of Lasiediplodia theebromae were present and also pyenidia of an allied species. These are wound parasites but can enter sound tissues when young and tender if growth be suddenly checked by attacks of fungi or insects on the roots or by excessive drying breeze during drought.

Treatment: Cut back below diseased region, burn cuttings and paint wounds with ten per cent green vitriol. Examine underground parts for injury or disease. Bad drainage, lack of cultivation and poverty of soil are all possible predisposing causes of such fungus attack.—(Sgd.) S. F. Ashby, Microbiologist.

***

"Please allow me to compliment you on your Journal for March, which impresses me as the best issue that I have seen for the past two years."—C. T. R., Correspondent St. Elizabeth.

***

"I hope you will bear in mind my application for E.X.O. Really I'am plagued by rats. I fully endorse you when you place *rats as the* plague of plagues before ticks. E.X.O. is the best thing for them I have used yet."

"I have an opening for a young man with some experience, especially in distilling, as Assistant Manager. The position would be permanent, as we work all the year round, The climate here is not bad, nor very hot either."

This refers to a sugar plantation in a mountain valley in Columbia, a very large company.

BRANCH NOTES.

Whitehouse (Westmoreland).—The regular monthly meeting was held at Kings on Tuesday 5.30 p.m. on the 1st April. R. E. Touzalin, Esq., the president of the society, took the chair and opened the meeting with prayer. Instructor Somerville was present, and received a hearty welcome. The attendance consisted of twenty members and thirty odd visitors, including children. The minutes of the March meeting were read and confirmed, and a very interesting meeting proceeded. The subject of corn came under discussion, and great attention was paid to the instructor, who delivered an instructive lecture on this product. Touching on the preparation of the land, selection of good seeds, planting out, weeding, etc , etc., he concluded by suggesting a corn-growing competition for the fall. The next item was the debate, "Burning the land or not burning it, which gives better results in the cultivation of crops," Mr. William Jamieson spoke strongly for burning, and was opposed by Messrs. John Wedderburn and James Watson, both of whom showed the waste of plant food that ensues from burning. Instructor Somerville, Mr. T. Lettman, and the secretary joined in the discussion, and proved how the soil is impoverished by fire. The president summed up the discussion, and when put to the vote the supporters of burning the land lost heavily, only six members voting for it. Amended rules for the working of the branch were read and discuss d under the guidance of the instructor, and adopted. It was agreed to have the rules printed, so that each member can have a copy. Many important questions were put to the instructor, who replied to them satisfactorily. A hearty vote of thanks was accorded him, and he made a suitable reply. The singing of the National Anthem and the Benediction closed the meeting.—M. HEWITT, Secretary.

***

Spanish Town (St. Catherine).—The regular monthly meeting was held at the Government Boys' schoolroom on Wednesday the 2nd April. Present: Rev. W. Clarke McCalla, President, Mr. W. Gentle vice-president, also Messrs. P. B. Francis, A. D. Mowatt, E. Lopez and others, with U. N. Brown as secretary. The minutes of the last meeting were read and confirmed. Mr. E. Lopez proposed Messrs, G. Wilks, J. Richards and A. Benjamin for membership. The applications were received and put to the ballot, with those of Messrs. D. Kepper and Jas. Campbell, and declared elected. The secretary read correspondence from the secretary of the parent society on Panama, Bonny Gate, and Black Spot Diseases in bananas. The secretary was instructed to write the general secretary saying that this branch thinks it is of the greatest possible importance, and that immediate action should be taken with regard to the protection of banana cultivators against disease as foreshadowed in his letter, and hope that ere long the promised treatise will appear in print for the benefit of those interested. A discussion here took place about the irrigation water supply, after which the following resolution, moved by Mr. A. D. Mowatt' and seconded by Mr. P. B. Francis, was carried :—
"Resolved: That in the opinion of the Spanish Town Branch of the Ja. Agricultural Society, the old rule should be reverted to in the matter of the irrigation water supply, that is to say, one yard should be the minimum instead of five as at present under the new rule, this being a ne-

cessity to small settlers who having from one to ten acres of land, and cannot really afford to take the supply which at present demands a five yards minimum, and respectfully urge on the parent society to so bring the matter before the irrigation commissioners. so that the peasant proprietors may have equal privileges with his more opulent brothers." It was agreed that the instructor (Mr. H. Leo Mossman) be written to, asking him to suggest a time when he will be able to attend a meeting of the branch, with a view to his giving a lecture on some subject which he may choose. It was moved by Mr. Lopez, seconded by Mr. A. D. Mowatt, that Mr. G. B. Wilks be nominated to be placed on the list of authorized persons under the praedial larceny law.—Carried. Amount collected 11/, after which the meeting closed with the Benediction.—U. N. Brown, Secretary.

***

Mahoe Hill (St. Mary).—The monthly meeting was held on Thursday 3rd April, at 12 a.m., when Mr. Cradwick was present. The attendance was not as large as was anticipated. Members seemed to be making the best of the refreshing showers which fell the whole day Wednesday. The president called the meeting to order, had the minutes of the last meeting read, and introduced Mr. Cradwick to the members. He regretted the several disappointments which prevented his visiting the society before, however he was glad to be there that day. Members complained that since affiliation, October last, they have not received Journals. Mr. Cradwick promised to have the matter remedied. Road.—Mr. Cradwick said he will report to the J.A.S. that he cannot make his headquarters here, as there is no road. He would sympathize with such conditions thirty years ago but not now. The people are to be blamed for waiting contentedly for so long without bringing their needs before the authorities. What is the use of advising people to increase their cultivations and grade their fruits when there is no road to take them out. The distance of two and three miles to carry bananas to meet carts is too expensive to the growers. The soil is rich, and there are great possibilities for the districts if better means of communication can be provided. He suggested that when he comes to visit the society the meeting be held at Broadgate at 4 p.m. After a short discussion it was agreed to, and the following arrangements made: Thursday 29th May at 4 p.m., meeting to be held at Broadgate. Friday 30th May, demonstration at Mahoe Hill. Thursday 24th July, meeting 4 p.m, Broadgate. Friday 28th July, demonstration Mahoe Hill. Thursday 25th September, meeting 4 p.m. Broadgate. Friday 26th September, demonstration Mahoe Hill. Thursday 27th November, meeting 4 p.m. Broadgate. Friday 28th November, demonstration Mahoe Hill. He said the secretary's duties were very important. His reports to the mother society should be definite, and sent in early, and also there should be regular publications in the newspapers. Subscriptions: He said members who paid 1/ in October last must only pay 6d. now. This will keep them in good standing to the 31st March 1914, but new members must pay 1/. Authorized persons work he stated is very important in checking praedial larceny, and since they are appointed on the recommendation of the society, none but the best men must be recommended. The authorized persons must bring in their reports monthly, thus the society will be able to exercise the proper supervision and keep them within legal bounds. Loan Bank: This will prove a very useful institution to the small settlers in the future. He explained all the benefits to be derived and advised all persons to become members. He explained some misapprehensions respecting titles as security for loans, that as soon as a man makes good his liabilities to the bank, his title would be returned. The present loans granted under Law 36 of 1912 are not the primary object of the bank. This will cease on the 30th June 1913. This bank is to help the small man to improve himself. Cocoa competition on the 28th April.

£20 given as prizes, ranging from £5, 10/, for the best cocoa cultivation to small cultivators whose holdings are not above twenty acres. Application can be sent in up to the 19th April. Vote of thanks to Mr. Cradwick. Meeting adjourned to the 29th May, 4 p.m.—W. A. SIBBLES, Secretary.

***

Central (St. Mary).—Thursday 3rd April being the day for the annual meeting of this branch, there was a fairly good turn out of members and visitors. Special invitations were extended to friends, and there was a hearty response, the members deciding to give an entertainment as a means of brightening things up in connection with the branch. The minutes were read and confirmed Letters were read from Mr. Thad. Livingstone, in which he resigned his position as authorized person, having left the island ; from Mr. Wolcott, advising the branch not to take any further proceedings regarding the points of dissatisfaction discussed at some previous meeting of the branch touching an authorized person. He stated that the R. M. for the parish promised to carry out the intent of the law in the most liberal and sympathetic spirit to all parties concerned. The authorized person stated that he got satisfaction from the court, and the meeting was willing to drop the matter. The Secretary then presented his annual report . He showed that the condition of the branch was not as healthy as it should be, and called on the members for their hearty support. The treasurer's report shewed that there is a balance of £1 16/9 to the credit of the society. The officers elected are as follows—J. A. Banks president, E. Foster and F. Gordon vice-presidents, E. A. Gunter secretary, F. A. Williams assistant secretary, H. H. Taylor treasurer. L. A. Stewart, J. Gordon, J. Latouche, Rev. F. W, Coore members of the committee. Messrs. A. D. C. Levy, J.P,, and Jno. Horris became new members, also Mrs. Cradwick. Mr. Cradwick in a few words congratulated the society for the interest shown during the past year, and wished it every possible success during the present year. He spoke further, and tried to remove the mistaken idea that had taken hold of a great majority of the borrowers from the local loan banks. He said that as soon as a borrower had returned the amount loaned all securities deposited to the bank would be returned. The meeting was brought to a close after singing the National Anthem. After the regular business was gone through, the audience was treated to a select programme of choruses, solos, duets and recitations. Light refreshments were served, and on the whole a very enjoyable evening was spent.—E. A. GUNTER. Secretary.

***

Stewart Town (Trelawny).—The annual meeting was held in the Baptist Chapel on Thursday evening April 3. The meeting was opened with prayer, offered by the Rev. E. H. Aljoe. The following members were present: John Stockhausen, Esq.. president, E. Arnett, Esq., instructor. Rev. E. H, Aljoe, Mr. Josiah Johnson secretary, ten members, and also about forty other persons present as visitors The minutes of the last monthly meeting were read and confirmed. Correspondence from Mr. Barclay re a threepence he claimed due on affiliation fee was read and noted. The secretary presented his annual report, which was moved by Miss Townsend, seconded by Mr. James Smith, and unanimously adopted, The treasurer presented the financial statement. The receipts for the year including a balance of £1 15/9¼ for the previous year, were £4 14/6¼, and the expenditure £4 11/9¼, leaving a balance in hand of 2/9. The keep of the pedigree boar was the heaviest item of expense. The secretary presented the penny bank account. The deposits although small, were regular and continuous. The amount to the credit of the bank at the end of the year was £16. The next item of business was a pleasing feature of the meeting—the presentation of an address and a souvenir to the secretary, which took him by surprise. Miss Townsend, Lady Prin-

cipal of the Westwood High School, kindly consented to read the address and present the souvenir, a valuable Waterman Ideal Fountain Pen. The address was an appreciation of the devoted services of Mr. Johnson, the secretary, to the branch from its formation seven years ago. It was signed on behalf of the members by Mr. E. Arnett, the agricultural instructor, and Mr. John Stockhausen, J.P., the president. Mr. Johnson thanked the members for the address and souvenir. The election of officers to serve for the present year was then carried through. Messrs. John Stockhausen and Josiah Johnson were unanimously re-elected president and secretary, respectively ; Messrs. Chas. A. McFarlane and A. Norman Brown unanimously re-elected vice-presidents, and Mr. Stockhausen re-elected treasurer. The amount of £3 voted at the last meeting to purchase a corn sheller and a grindstone, was found to be insufficient, so the treasurer was authorized to draw £1 more from the show fund to meet the cost and carriage of the articles. Mr. Arnett informed the meeting that he had seen a sample specimen of an excellent corn-sheller at the hardware store of Messrs. Emanuel Lyons & Son, Kingston, the price for which is £2 2/, and he advised the members to obtain such a machine, as it not only shells and cleans corn, but peas also. Mr. Stockhausen was asked to obtain one of the kind. The items of business being disposed of, Miss Muriel Thomson favoured the meeting with a song, Miss Townsend accompanying on the organ. Miss Thomson merited the applause she received. Miss Townsend then rendered in her splendid elocutionary manner, a humorous recitation, which was well received. Mr. Stockhausen then followed with a few excellent selections on his gramaphone. Before closing Mr. Arnett moved a vote of thanks, which was heartily carried to Misses Townsend and Thomson for their interest in the branch, and for ably assisting in the evening's proceedings. Mr. Arnett also complimented the president, secretary, and the other officers as well as all the members for their hearty co-operation in keeping up in a satisfactory manner the branch society here, and urged their continued interest in it. The Doxology was then sung and the meeting terminated. In the afternoon there was a show of small stock, consisting of goats, pigs, fowls and rabbits, in the chapel yard. It had been arranged for the ostensible purpose of giving the instructor an opportunity of pointing out the types of animals most profitable to rear. This effort on the part of the instructor is to be commended, as it is most instructive, and it is expected to be an annual adjunct of our agricultural branch society's operations. The following new members were enrolled—Messrs. Ben Hewitt and Daniel Rose.—JOSIAH JOHNSON, Secretary.

***

Mount Regale (St. Mary).—The usual monthly meeting was held on the 4th April. Twenty-six members were present, including Mr. Cradwick and two visitors, Miss Wolcott and Mrs. D. Officer. Minutes of the last meeting were read and confirmed. Mr. Charles Clarke reported having bought the pigs for the branch, and that they were doing well. The meeting here passed a vote of condolence with the relatives of vice-chairman Brown, who died on Tuesday of the same week. It was thought a favourable opportunity to seek the removal of the registrar's office to a more suitable and central spot, and to that end Mr. Charles Clarke moved, and Mr. C. A. Robinson seconded, that it be removed to Upton (at the Post Office). Treasurer's report was read, showing a balance in hand of 11/. Authorized persons reported that stealing is being suppressed. Messrs. Johnson and Geo. Roberts reported two thieves arrested who are now in prison. Mr. Cradwick will read a paper on Irish potato cultivation at the June meeting. He referred to the cocoa competition, judging of which will take place about the 17th of May. He tried to remove the misunderstanding in regard to the Richmond People's Co-operative Bank, as far as we are concerned, that our titles are returnable as soon as our obligations to the bank are met. He does not think the

amount deducted from borrowers high. The election of officers for the current year resulted in the following: Rev. R. H. McLaughlin president, Messrs. W. T. Mattocks and C. A. Robinson vice-presidents, Miss A. V. Thompson treasurer, Mr. B. Thos. Atkinson secretary. It was decided to invite the Rev. Gordon Hay to the meeting in June, when Mr. Cradwick will be present. After the singing of the National Anthem the meeting rose, and then the distribution of seeds from the parent society took place, meanwhile Mr. Cradwick was carrying out some practical demonstrations on cocoa pruning in the field of Mr. Daniel Hanchard. A few more such lessons must surely bear fruit..—B. Thos. Atkinson, Secretary.

***

Cambridge (St. James).—The annual meeting took place on the evening of the 4th April. It should have been held on the 3rd, but was postponed so as to have present the Rev. J. A. McIntosh, the president. Several members were present. Mr. E. Harrison, who had resumed the instructorship of the district, was also present. Two members, viz., Messrs. Samuel Holmes and Richard Barrett, were elected. A report of the past year was expected from the secretary, but as it was not forthcoming, the acting secretary, Mr. Arnold, furnished a brief one covering the short period of his secretaryship. The next important business on the agenda was the election of officers for the new year. To this end Mr. Harrison was asked to preside, and the following elections were made: President, Rev. J. H. McIntosh, vice-presidents (senior) Mr. H. S. Whittingham. 2nd and 3rd Messrs. E. E. Myers and R. H. Kerr respectively; secretary, Mr. R. M. Arnold; treasurer, Mr. H. Chambers; others of the executive, Messrs. R. Trout. F. Roxburgh, E. C. Hayden, R. Kentish, J. A. Keddie, W. Geddes, G. Dayes, R. W. Atkinson, E. S. McAdam, H. Whitfield, W. Tyson and H. L. Roper. After resuming the chair, the president accorded a hearty welcome to Mr. Harrison and asked him to speak. Mr. Harrison could not speak very long, as he was due at the Montpelier meeting the same evening. He, however, addressed a few words of encouragement to the members, and referred to the prize holding competition, intimating that it was to be in this parish soon. He encouraged the members to start preparing for it, promising to give a lecture on it at an early date. He said he would also like to see the society try to organize some social function so as to show mutual interest and to develope its general usefulness. Mr. Harrison then left. A revision of the rules of the society took place, in which it was agreed to hold the ordinary meetings of the society on the first Thursday of each month at 5 p.m., and to fix the month of April for an annual meeting. It was agreed to hold a special meeting of the society on the 17th April at noon, for the consideration of certain matters connected with the late show, and the final winding up of all its affairs. The out-going treasurer having been absent at the beginning of the meeting, presented his report later on. The meeting adjourned until the 17th of April.—R. M. Arnold, Secretary.

***

Miles Town (Hanover).—The regular meeting was held at the Miles Town Court House on Saturday April 5th at 4 p.m. It was opened with prayer. The president was absent, and Mr. D. Henry was called to the chair. The chairman addressed the meeting, urging the members to co-operate with one another and with the instructor in carrying out the objects of the society. The minutes of last meeting were read and confirmed. The matter of obtaining a billy goat of milch type was discussed by the members, and the instructor informed the members that a very good goat could be obtained through Mr. John Barclay, and he would correspond with him. The members pledged themselves to subscribe one shilling a head towards the purchase of the goat. A discussion on seeds

was raised by the members, and resulted in the secretary being instructed to order one bushel corn, two barrels St. Vincent yam heads, one bushel black eye peas, and one bag red peas from the parent society. The instructor following upon his lecture in Feby., gave a very interesting lecture on the curing of coffee. The members were so interested that a vote of thanks was given to him. The instructor proposed at the next meeting a discussion be held as to whether burning of land was advantageous or harmful—Mr. Powell for and Mr. Johnson against. There were 16 members present. The meeting closed by the acting chairman with short prayer.—E. JOHNSON, Secretary.

***

East Portland.—The annual meeting was held in the schoolroom at Manchioneal on Saturday the 5th April. There were over thirty members present. The minutes of the last meeting were read and confirmed. In the absence of the treasurer, the secretary presented the financial statement, which showed a balance of £1 16/6 to the credit of the branch. Twenty-eight members paid up subscriptions for this year. The following are the new officers: President, L. R. McBean; 1st vice-president, H. Buckly; 2nd vice-president, D. A. Fuller; secretary, E. R. Wallace; assistant secretary, J. J. Allwood; treasurer, F. M. Jones; managing committee: C. H. Leslie, A. H. Randall, C. E. Randall, J. H. Price, Saml. Titus, C. M. Clarke, F. A. Plummer, Z. Allen, and Nathan Stewart, with the officers. The president stated that when he was secretary he sent for seeds, but up to then only some peas had come. It was decided to distribute the peas to a few responsible people who would use them to propagate fresh seeds for the members. The following promised to take seeds: Messrs. Randall, Cousins, Fuller, Wallace, and Panton. The other seeds will be distributed when they arrive. The meeting was then adjourned to the 3rd of May.—ERNEST R. WALLACE, Secretary.

***

Ginger Hill (St. Elizabeth).—The regular meeting was held on the 9th April, and there were present Rev. J. A. McIntosh, president, Thos. Powell, Esq. acting instructor, 18 members and the secretary. The minutes of the last meet'ng were read and confirmed, and important business arising out of the minutes was discussed, the chief of which was the matter of the proposed road through Crawl Pass. The necessity of this road was clearly brought out by the discussion. The meeting decided that a petition be sent to the Governor through the honourable representative for the parish, asking that the road be constructed now in order that work may be obtained for the thousands of people in the immediate and neighbouring districts, who are, without the least exaggeration, suffering from the effects of the recent hurricane, and these effects are keenly felt now. Mr. Powell, who is acting in the place of Mr Palache, gave very encouraging lectures on the cultivation of bananas. He encouraged the planters to tackle the difficulties which lie before them with energy and method, and what may seem now to be a great hindrance will soon be a great blessing He also encouraged the members of the loan bank to co-operate, as it will not fail to be of great benefit to the community. The president, in addressing the members, encouraged those who are despondent over the existing condition of things, to be hopeful and continue to work at their tasks faithfully. This branch is very grateful to the parent society for the invaluable assistance rendered by the free gift of seed corn and peas. The season up to the 9th April was excellent, but since then there has been a severe sharp drought, accompanied by severe winds. The next meeting will be held on the 12th June, when Mr. George Phillips will read a paper on "The nature and benefits of Thrift."—E. S. JARRETT, Secretary.

Morant Bay (St. Thomas).—The regular meeting was held at the Court House, Morant Bay, on the 9th April. There were present, Messrs. J. M. Service, vice-president, in the chair, W. H. Smith, W. O. Reid, J. M. Fonseca, D. Marshalleck, J. D. Gordon, C. N. Dias, A. H. Hoare, agricultural instructor, and twelve other members. The minutes of the last meeting were read and confirmed. The secretary read letters from the Hon. Director of Agriculture, re the dismissal of Mr. H. C. Thomas, agricultural instructor, from the service. It was moved by Mr. W. O. Reid, and seconded by Mr. J. B. Gordon, that the Hon. Director of Agriculture be replied to in terms of the draft letter submitted to the meeting. Seventeen members paid in their subscriptions for the year. The question of loan banks was discussed and then deferred for a fuller meeting. Mr. W. O. Reid proposed the name of Mr. Nathan Rose as a new member, which was seconded by Mr. T. J. Knight. The gentleman was unanimously elected. It was also moved by Mr. W. O. Reid, and seconded by Mr. W. H. Smith, that the minutes of this and other meetings be prepared by the secretary and then forwarded to the secretary of the parent society for publication in the JOURNAL. Mr. Hoare, the instructor, was at this stage introduced to the meeting by Mr. W. O. Reid in a few well chosen words. The instructor replied, thanking Mr. Reid for his introduction, also intimating his pleasure at being present. He gave brief hints on mulching and forking of the soil, and the results that can be got from so doing. He also spoke on the cultivation of cocoa and the high price it is now bringing in the English markets. The agenda being exhausted, the meeting terminated till Wednesday the 7th May next.—SIMON JOS. BLACK, Secretary.

***

Wilmington (St. Thomas).—The regular monthly meeting took place on Thursday the 10th April at 6 p.m. There were present, Mr. A. H. Hoare, agricultural instructor, 42 members and the secretary. As neither the president nor vice-president was present, it was unanimously agreed that Mr. Hoare be asked to preside ; this he acquiesced to. The minutes of the last meeting were read and confirmed. Arising out of the minutes, the Stanton Road matter was again brought up for discussion, and it was decided to draft a petition to be signed by all the members and taxpayers directly interested, to be forwarded to the Government. The road in question is in a very bad condition, considering the amount of traffic on it daily it certainly deserves better attention from the authorities. It was moved by Mr. A. L. Cox and seconded by Mr. Alex. Porteous, that the secretary order 1,000 circulars to be used for the purpose of notifying members of the dates of meetings, etc, the present system of writing circulars involved too much work on the secretary. A report of the picnic held on the 25th March was then read by the secretary. This showed a nett profit of 17/. A very important item on the agenda was a lecture on banana-growing by M. Hoare This gentleman dealt with his subject in a practical and masterly manner, and better results should be achieved if the hints and suggestions he threw out are carefully followed. He dealt with banana growing under the following heads :—1 Preparation of Land ; 2 Lining (planting not nearer than 12 feet) ; 3 Digging of holes (2 feet square and 18 inches deep) ; 4 Selection of good maiden suckers ; 5 Trenching, "V" shaped trenches to be cut 2 feet deep : 6 Frequent weeding : 7 Pruning. Mr. Hoare gave substantial reasons for whatever method of cultivation he advocated, and there is no doubt whatever that the benefits to accrue from his lecture will be far-reaching. At the close of the lecture a vote of thanks was moved to the lecturer by the secretary, which was heartily responded to. Six new members were elected ; this brings up the membership to 72. Twenty members paid up their subscriptions. The annual meeting will be held on the 8th of May, and as there are several prospective members, it is hoped that the membership will then read 100.—R. W. O'NEIL SPEID, Secretary.

Stony Hill (St. Andrew).—A very hearty and enthusiastic meeting was held on the 10th April, when there were present, the Rev. Franc is Bavin, president, Messrs. W. J. Brooks and J. W. Crisp vice-presidents, W. B. Reid secretary, J. Brisco agricultural instructor, and twelve members. There were also eight visitors present, five of whom subsequently became members. The minutes of the last meeting were read and confirmed. As arising out of the minutes, the question of exhibits to be sent to the Cambridge-Woodford Show came up for discussion. Mr. Briscoe urged the committee that had been appointed to use their best efforts to get members and others to send exhibits to the show, especially as this society intends holding a show later in the year, and will be glad to get some support from the Cambridge branch. Several exhibits were promised to be sent. The chairman then called for the nomination of new members and payment of subscriptions for the new year. Several new members were enrolled and subscriptions received. The principal question for consideration was the proposed Stony Hill Show. It was unanimously decided to hold the show on Wednesday December 3rd, and the secretary was instructed to communicate at once with the parent society to this effect, and in due course to make application for the usual grant in aid. Mr. Briscoe was requested to give some hints relative to the preparations and arrangements necessary for the show, which he did, and also undertook to prepare a prize list and submit it to the show committee at a meeting to be held at 5.30 on the 17th April. It was also decided that the total amount for prizes should not exceed the sum of £50. The secretary and treasurer next submitted their reports, which were adopted. The treasurer's report showed a balance in hand at date of £1 16/ to the credit of the society. The report of the penny bank was highly gratifying. The services of the treasurer, Mr. W. J. Brooks, and especially of the secretary Mr. W. B. Reid, on whom the chief burden of the work has fallen, were heartily appreciated. Mr. Payne, an old friend of the society, spoke at the close of the meeting, urging members to co-operate and work heartily together to bring about a succesful show. The district was one unsurpassed in many respects by any other district in the island. He promised his support. A very hearty and enthusiastic meeting was then closed by the president.—W. B. Reid, Secretary.

***

Marlborough (St. Mary).—The regular monthly meeting was held in the schoolroom here on Thursday April 10th at 4 p.m. There were present Messrs. A. J. Duncan, president, in the chair, Z. French, vice-president, W. Cradwick, agricultural instructor, the secretary, and twelve members. Messrs. J. Meek and G. McGibbon were also present as visitors. The minutes of the last meeting were read and confirmed. Arising from the minutes, the question of having the rules of the society printed was discussed for a short while, and on the motion of the instructor, who showed the unnecessary expense that would be incurred thereby, it was agreed that the matter be deferred. The secretary reported that no reply re resolution sent in from the society to the chairman of the Richmond loan society had been received. Mr. French asked questions re the deposits made in the Government Savings Bank on behalf of the society. He was satisfactorily answered by the secretary. Letters were read from the secretary of the parent society re the appointment of authorized persons, and from the parochial board re resolution sent in from the society. It was agreed to form a special committee to frame a reply to the parochial board, thanking them for their letter, in which they promised to give attention to the roads complained of, and at the same time pointing out certain bad spots on the said roads, by which wheeled traffic is inconvenienced. The following members were unanimously elected by the meeting: Messrs. W. Richards, overseer at Hopewell, J. Meek, Orange River, and G. McGibbon. The treasurer's report was read, which showed the amount of 16/ in the bank and 5/10 in hand. The president

spoke briefly on the small amount to the credit of the society, and urged members to invite others that the membership might be increased. The instructor then addressed the meeting. He dealt chiefly with the cocoa competition. He encouraged the members to enter as competitors, pointing out the benefits to be derived even if they did not earn prizes in the present competition. Their holdings will be judged on the 3rd May next by Mr. Wates, who will be accompanied by Mr. Cradwick. The instructor also explained certai matters re the Richmond loan society, which were misunderstood by the majority of shareholders. He was heartily thanked for same. Messrs. C. Green and J. E. Ford gave in their names as competitors for the cocoa competition. Mr. Cradwick proposed to attend the meetings of the society on the following dates :—June 12th, August 14th, October 9th, and December 11th. He also promised that on June 12th next, he would be in the district from 8 a.m. for the purpose of demonstration. Mr. A. D. McFarlane, one of the authorized persons, explained that he had not been provided as yet with handcuffs, and it was agreed that the secretary of the parent society be notified. It was agreed to change the date of the meetings to the second Thursday in each month. The next meeting was therefore fixed for Thursday May 8th at 4 p.m. The National Anthem was sung and the meeting adjourned.—A. SAML. FINLAYSON, Secretary.

***

Bangor Ridge (St. Mary).—First annual report presented at the meeting held on the 10th April. The membership consists of 27 persons, 22 being foundation nembers and 5 joined during the course of the year. Officers—Isaac Haase president, T. S. Sutherland vice-pressident, N. A. Clare treasurer, B. A. Crawford Case secretary. These with eight members form a quorum. During the year the 1st vice-president F. Williams, died. Nine regular meetings and three special meetings were held. The attendance was fair. £1 16/6 received for the year's subscription ; 7/3 spent in affiliation fee ; balance in hand £1 9/3. The financial position is satisfactory. The society was affillated with the St. George society. During this year it will be considered whether this affiliation will be renewed or whether it should be effected with the parent society. The work in the district having become too much for Mr. Cradwick, whose labours were very much appreciated aud successful, Mr. A. P. Hanson was appointed assistant instructor. He has entered heartily into the work, and there are signs of continued improvement in agricultural matters. During the year lectures were delivered by the secretary on the incident of direct and indirect taxation. The baneful effects of indiscriminate burning of land, hurricanes and their causes, and extracts were read from the health law and the banana disease question. Lectures were also given by the instructors on drainage, banana farming, value of green crop manure, mulching, coffee planting and pruning, necessity for selecting the healthiest plants to rear from, and demonstrations given in budding, pruning, and treating of plants and soils generally. The greatest sensation in agricultural circles was caused by the discovery of Panama Disease in the field of Mr. D. A. McFarlane. The Government took steps to stamp out the disease, and have so far succeeded. The names of Messrs. Cradwick and Hon. S. S. Stedman must be associated in the work of discovering and eradicating the disease. In the earlier part of the year a severe drought existed in the island, causing the loss of many plants, which entailed serious hardship by the destruction of nearly 40 per cent of the banana supply. Happily the effects are now passing away. The society petitioned for, and obtained a new post office at Balcarres, which greatly facilitates the people of the district in the receipt and despatch of their mails. A resolution was forwarded to the parochial board embodying a request for a driving road into the district. No reply has yet been received. Now that the hon. member of the Legisla-

tive Council resides in the district, the society will endeavour to enlist his support in the matter. A great disappointment has been the failure to form an agricultural loan bank, which would have rendered the necessary pecuniary aid. The report closes with the wish that old members will renew their membership and new ones will co-operate with them and support the society during the second year of its operation. Adopted on the motion of E. Hossack, seconded by Isaac H. Johnson. (Sgd.) Isaac Hanse president, B. Crawford Case secretary.—THOS. N. WYNTER, Asst. Secretary.

***

Smithville (Clarendon).—The annual meeting was held on the 11th April, when there were present, Messrs. F. McLymont, in the chair, S. A. Schleifer. instructer, W. S. Reid, vice-president, the secretary sixteen members and five visitors. The minutes of the last monthly meeting were read and confirmed, after which a lengthy discussion on praedial thieves followed, when it was brought to the notice of the meeting that there are some men who will allow a thief to escape punishment, giving as their reason that they sometimes lose two days, and in some cases three days without any compensation : besides the things stolen are not paid for, and in many cases the prisoners are not detained in prison sufficiently long to relieve the district of their presence. Many of the members expressed themselves as thief haters. but concurred that complainants should be paid for every day spent in attending court, and for the day spent in going to swear to the information before a Justice of the Peace, who may be living eight or ten miles away. Messrs. Silvanus Daley and Hosea Gayle were enrolled as members. The secretary then gave his annual report, in which he very clearly showed what the society has accomplished during the year just closed. The interest of the members was kept up in spite of the year having been one of great financial stress. occasioned by the severe drought and subsequent disastrous hurricane," he said, "and therefore they could only hold eleven meetings." He made reference to the several successful resolutions sent to the Government and parochial board, to the debates and discussions on profitable subjects of agricultural import, to the able lectures delivered at most of the monthly meetings by the instructor, and to the several demonstrations on coffee, cocoa, and banana pruning, which he gave ; to the prize holdings competition, and showed that every competitor of this society was successful in obtaining a prize ; to the reports of the authorized persons, and congratulated Mr. Daniel Stone for having detected 14 praedial thieves during the year. His report also showed the society to have £3 10/6 to its credit. The report was adopted. and the president gave his retiring address and vacated the chair. He thanked the members and vice-presidents for the able support they gave, and expressed the hope that they will extend the same support to his successor. The treasurer's report was next received, after which Mr Schleifer moved a vote of thanks to the retiring officers. seconded by Mr. Deacon, Mr. Schleifer was asked to preside over the electien of officers. The result of the election was as follows : Mr. W. A. Bryan president, Messrs, F, McLymont, W. S. Reid, J. Deacon vice-presidents, J. A. Edwards secretary, Thos. Davis treasurer. It was agreed on that the society procure five gallons of coal tar to be sold to the members. Mr. Schleifer next gave a profitable discourse on the care of our cultivations. after which the National Anthem was sung and the meeting terminated.—J. A. EDWARDS, Secretary.

***

Preston (St. Mary).—The monthly meeting was held in the Preston Schoolroom on Friday 11th. April 1913. It was opened with the reading of Scripture and Prayer. Minutes of last meeting were read and confirmed. The President presided. Mr. Cradwick Agricultural Instructor for St. Mary was present. The Secretary read the Financial report

of the Society for the year ending 31st March. Mr. Cradwick moved that the report be adopted, the society being in a healthy state. He spoke to the members on the importance of being regular in attendance at the meetings. Mr. I. Amul asked about the petition on road No. 4. Mr. W. Morgan said that the petition has been wilfully delayed as it is now twelve months since it was to have been got up. The president has promised to give the subject his attention, but he thinks it an unfavourable time now to send the petition to His Excellency the Governor, as the Estimates for the year have already passed the Council and he considers it advisable that the petition lie over until the financial s.ate of the Island is improved. Moved by Mr. Parodie and seconded by Mr. Andrews that a special committee be formed for the time being to whom all matters connected with the society can be referred. It was moved and agreed to that a petition with a letter attached be sent to His Excellency the Governor by the Chairman through the parochial board, inviting His Excellency to visit the district. On motion re the bridging of the Brimmer Hall river the President intimated that the subject is under favourable consideration. The arrangements re the purchasing of a Ram and Boar for this society are in the hands of Mr. Cradwick. The judging of the Cocoa cultivation competition for this district as intimated by Mr. Cradwick will begin on Thursday 8th May at 9 oclock p.m. The competitors are Messrs I. Melbourne, J. Thorpe, J. Parodie, R. Forsyth, F. Enter and Mrs. C. Benbow, (wishing them success). An unfounded rumour that the Government has issused orders to destroy all hogs has gained a wide circulation among the people. This has probably been circulated by the butchers for the purpose of getting pigs to buy at a cheap rate. Mr. Cradwick showed the folly of the rumour, and the uneasiness that existed among hog owners passed off. Mr. I. Amul moved a vote of thanks to the Treasurer which was seconded by Mr. Cradwick. This society will be pleased to know from the Secretary of the parent society the cost per cwt. of the St. Vincent yam heads and how they can be got. Some of the members invited Mr. Cradwick to visit their cultivation on Saturday for demonstration. There were 25 members present and Messrs Warrand and Rigmel Forsyth gave in their names as members. The Affiliation fee for the current year was sent up, also amount for the printing of rules for the society. The benediction brought the meeting to a close. Next meeting Friday, 9th May.—I. M. WILLIAMS, Secretary.

***

Waldensia, (Trelawny).—Annual Report for the year ended 31st March, 1913. The Annual meeting came off on the 11th April. 1913. The President, Secretary, Treasurer, local Instructor for the District, 16 members and several visitors were present. The Secretary's report was as follows : Membership :—Owing to indifference or some other causes. the increase in membership has been very small since the affiliation of the Branch with the Mother Society in the early part of last year, it numbered 42, and only reached 47 at the close of the Financial year, i.e. the 31st March of this year. Of the 47, one left the Island, one resigned from force of circumstances, and three disqualified themselves by non-payment of their subscriptions. Two new members joined during March, and the membership stands at present at 44. Meetings and attendance : During the year nine meetings were held, with an average attendance of slightly over 25 per cent of the number on Roll. At these meetings the President attended 7 times and the local Instructor 6. The low average attendance is to be attributed to the fact that more than 50 per cent of the members are persons who live outside of Waldensia, and divers of them are business men and employees who can't afford the time to attend. But while this is the case, it is to be regretted that there is a large number who ought to come forward to encourage the Agricultural enterprise, but who still keep themselves aloof from the

Society and its operation : Branch Notes : Correspondence was carried on regularly with the General Secretary of the Jamaica Agricultural Society throughout the year, and votes of monthly meetings reported to him : Finances : Subscriptions received for the year, £2 0s 0d : Amount paid over by Treasurer of Defunct Society - £1 4s 1½d Affiliation fee and Stationery, etc., 7s. 4½d., amount for stamps purchased 7s. 0d., balance in Treasurer's hand at the end of the Financial year £2 9s. 9d. Journals : As far as I was made to understand the Agricultural journals were regularly received by members, and I trust that they will during this year respond to their obligations that their supply may continue, it being imperative that the subscriptions be paid within three months of joining the Society. Local Instructor's visits : As appeared under attendance at Monthly meetings, during the year Mr. E. Harrison, Agricultural Instructor, attended 6 meetings, delivered inspiring lectures relative to Agriculture and other important matters, the substance of which, if those who attended, had imbibed and carried into practice, would have benefited them in a large measure. Several visits were also paid by the Instructor to the Waldensia School Garden and the instructions given by him to the teacher in charge, duly acted upon. Other matters of importance : During the year such matters as Penny Bank and Agricultural Loan Bank were in contemplation. The latter failed to meet with any measure of success, owing to the unwillingness on the part of those who wanted to join, to fall in with its rules. The Secretary felt it right, to express in a few words the members' gratitude to the Parent Society for its readiness to show its practical sympathy in sending beans and peas to the sufferers to assist them after the hurricane devastation of November.—N. A. LIVINGSTON, Local Secty.

***

Dallas and Constitution Hill, (St. Andrew.—The regular monthly meeting was held on Friday 11th, April at Constitution Hill. In the absence of Mr. Vickridge the chair was occupied by Mr. Joseph Edwards of the V. P. S. H. Henry (asst. secretary) acted as secretary in the absence of the chief secretary. Meeting was called to order at 1 p.m. and opened with prayer lead by Mr. Cunningham. Minutes were read by asst. secretary and confirmed. Mr. Cunningham moved a vote of thanks to the Parent Society seconded by Mr. McRae for St. Vincent yam heads received. Vice President expressed regret that Mr. Briscoe Agricultural Instructor was not present as he had been expected. A member pointed out (as arising out of the minutes) that the men who worked on the new Driving road were badly treated. He named a man who took a job from the Superintendent personally and who has not until now received a penny. Mr. McRae emphasised that new members must not only enter their names but must attend the meetings for *no members* will mean *no meetings*. Mr. Palmer moved, seconded by Mr. Cunningham that members turn out in time to start meetings precisely at 12 oclock noon. Mr. H. Henry (assistant secretary) proposed two new members Messrs Turpin and McCarthy ; they were admitted. After some further discussions on minor matters and the paying of some subscriptions, the meeting was brought to a close with the singing of the Doxology ; subscriptions received 4/—C A LITTLE, Secretary.

***

Avocat, (Portland).—The Annual meeting was held Friday the 11th April, 1913. Present : The Rev. Father Peter Kayser President in the chair, A. P. Hanson Esq. Agricultural Instructor who was engaged in demonstrating work in this and other districts since the day before. The minutes of the previous meeting were read and confirmed. Matters arising out of the minutes were dealt with, debate deferred. The secretary presented and read the annual report, which shewed in parts the benefits derived and the success achieved, by the untiring efforts of this

branch since its affiliation. The establishment of a Post Office at Balcarres, improvements on Roads Nos. 21 and 22, as well as seasonable notes and hints from the journals as the months go by. The financial condition is not satisfactory owing to the depressed condition of the people just now. Penny Bank report showed £5 5s. 11½d. deposited and £4 6s. 8d withdrawn. The adoption of the report was moved by Mr. J. B. McLarty and seconded by Mr. D. Moodie. The secretary was panegyrised for his impressive report. Miss L. E. Wylie became a member. The following members paid their subscription of 1/ each : Timothy Williams, Adonijah Hall, Augustus Sullivan, Isaiah Gardener, and the President. The Instructor here made a few encouraging and explanatory remarks, re hoeing and pruning in the fields ; he also explained the reasons for the winding up of the Buff Bay P. C. A. L. B. Mr. J. Sutherland foreman at Hope was asked to address the meeting. He spoke very ably on the Panama Banana disease in Jamaica, and wound up by asking the unstinted co-operation of the branch in stamping out the much dreaded disease. He was warmly thanked for his lucid and most impressive remarks. The election of Officers resulted as follows : Rev. P. Kayer, President, Messrs J. B. McLarty and David Moodie, Vice Presidents, Joseph Smith Esq., Treasurer, T E. Nesbitt Esq., Secretary, Miss L. E. Wylie, Assistant Secretary, J. H. Lafazette, Timothy Williams, and Isaiah Gardener, Managing Committee. After a few minor matters were dealt with the lengthy and pleasant meeting was adjourned sine die.—T. EMANUEL NESBITT, Secretary.

***

Mocho and Brixton Hill, (Clarendon).—A special meeting came off on Friday 11th April 1913 in the Brixton Hill Schoolroom. Present : The President J. Augustus Rhoden presiding, the Vice-president H. A. Barnes, Messrs H. H. Eastwood, I. Rattigan, Alexander Lloyd and Robert D. Adams, Treasurer ; twelve other members including the Secretary and a few visitors. The meeting having been called to order by the President the minutes of last meeting were read and confirmed. This being the commencement of another year the President very briefly delivered an address referring to the past year's work of the Society. As President he said he could look back with pleasure on the work accomplished by the Society. He was sorry he had not the opportunity to get up a written report to present to the meeting, but would endeavour to make a few remarks by way of encouragement to all present. He pointed out the erroneous ideas that went abroad by many touching the "Prize Holding Competition" that it was only a scheme of the Government to increase taxation but instead of that, he could point out many of our members to whom prizes had been awarded to most creditably, (cheers), and further, got their holdings greatly improved, and thus became more valuable. He encouraged members to start with greater fortitude this year and go forward. Having closed his address, he then called on the secretary, S. Aug. Francis to give his report on the past year's work. The secretary presented a written report, but having the same done concisely so as to avoid all that was not necessary, it did not meet with the approval of 2 members, H.A. Barnes and David Allison ; the action of these two members greatly surprised the majority of members. It is rather regrettable to remark that an officer after having done his best in the interest of a society should be dealt with after this manner by certain members. Mr. Adams was then called upon by the President to give his report as Treasurer ; he said his account was just the same as was stated by the Secretary in his report. The President in reply appointed Messrs Eastwood, Rattigan and the Secretary to have the account audited. This being now the time for the election of officers for the year, the President then vacated the chair and proposed that Mr. Rattigan be respectfully asked to take the chair, this was agreed to, and Mr. Rattigan took his seat, made a few suitable

remarks which were highly appreciated. Election of officers : The following persons were installed in office, viz : J. Aug. Rhoden, re-elected President, H. H. Eastwood and I. Rattigan, Vice Presidents. R. D. Adams, re-elected Treasurer, S. Aug. Francis re-elected Secretary. Managing Committee : Messrs B. Francis, Ivan Francis, Alexander Lloyd, H. A. Barnes, E. Reid, D. Allison, Joseph Allison and James Thomas. Of these, three were re-elected Ivan Francis, Alexander Lloyd, and Joseph Allison. Mr. Rattigan now left the chair and Mr. Rhoden being re-elected resumed his seat as President. After a few remarks in the usual way suggested that the Managing Committee should always be in time, say at least one hour before meeting commences ; Authorized Persons : These Officers were written to by the Secretary and were warned in due time so as to be present at the meeting to give some account of their work in the past ; only Mr. Barnes and James Thomas appeared. This matter was left over till next meeting. Mr. Rattigan in a brief and suitable address urged and encouraged members to be in earnest and endeavour to have their work done properly. Mr. Barnes was anxious to give his report as requested, but being late it was deferred to next meeting. Mr. Barnes moved and supported by the President that in future meetings be held on the first Friday in the month and to commence at 3 oclock precisely ; Roll call : Mr. William Morley and William Gilfillian elected members of the Society ; proposed Mr. Barnes, seconded Mr. David Allison, There being no other business the meeting adjourned till first Friday in next month ; subscriptions received 2/—S. AUG. FRANCIS, Secretary.

***

Claremont, (St. Ann).—A meeting was held on Saturday the 12th of April, 1913 There were present Hon. Col. Moulton Barrett, President, 18 members, E. Arnett Esq., Agricultural Instructor and F.P. Alexander, Secretary : (1) The minutes of the last meeting were read and confirmed ; (2) As arising out of the minutes three letters were read, (a) one from Mr. Arnett stating that he would visit the holdings in the district and inspect the diseased Orange trees and that he would be present at the next meeting of the society to lecture on the "diseases of Citrus trees ; (b) letter from Mr. Barclay stating that the irregularity in the receiving of the journals by members *may* be due to the fault of the Postal department ; (c) letter from the Saint Ann Parochial board in reply to a petition sent them by the Society asking for a right of way to the spring at Prickly Pole. The board asked for the following information, (a) the owner of the land on which the spring is situated, (b) whether he would dispose of it at a reasonable figure, and (c) the owners of the intervening land and whether they would give the land for a roadway or sell at a reasonable figure. In reply the secretary was instructed to inform the board that they own the spring and about three acres of land contiguous thereto, the Hon. Colonel Moulton Barrett, C. M. G., having presented it to them from the year 1908 for the use of the parishoners living in the neighbourhood of Prickly Pole and the board notified him of their acceptance of it ; (3) After receiving a hearty welcome from the president Mr. Arnett dealt with the diseases of Citrus plants in the following order : (a) Collar rot : This he pointed out shows itself in a yellowish gum exuding from the roots or from the stem near the roots. On removing the bark the wood beneath appears brown and is sometimes dead. This is caused by moulding up the roots too much. The remedy is to open the necks of the trees for a distance of about 18 inches. A flattened stick and not a cutlass is best to do this ; all the large roots should be left exposed. The diseased bark and wood should be cut off and the cut surfaces tarred ; around the roots should be limewashed. the surrounding soil lightly stirred and lime sprinkled on it. (b) White scales, moss and lichens : These are very prevelant where the trees are overcrowded and the soil damp ; the moss and lichens should be removed and burnt.

To get rid of the scales the branches and trunks should be washed with a mixture of white-wash and fresh cow's dung, taking care not to make the white-wash too strong; a mason's brush is suitable to wash with. (c) Die back i.e. the dying back of the tree from the tips of the branches. This is caused from damp and sour soil which causes the root-hairs to die. Weeds should be kept out and the soil loosened lightly with a fork and white lime scattered over it. Next, go 3 or 4 feet away from the trunk and cut a trench 2 feet wide and of equal depth to allow the excess of moisture to draw away. (d) Hollowness of stems: This is sometimes due to the branches getting damaged and water soaking in. Dead and decaying wood and small branches in the centre of the trees should be removed with a saw. The instructor promised to further inspect deseased trees in the district on Friday the 18th. Before closing his address the instructor impressed on the society the necessity of growing more corn. A vote of thanks moved by the President and seconded by the Rev. A. W. Geddes was accorded the instructor. (4) Mr. S A. Lawrence a successful cultivator addressed the meeting. He attributed his success to deep mulching deep forking, heavy manuring, proper spacing of plants, large holes for bananas and large, deep hills for yams. He denounced burning the land before planting. A vote of thanks moved by the President and seconded by Mr. Heming was accorded Mr. Lawrence. At this stage Mr. Arnett encouraged the planting of St. Vincent yams as they yield a large return. The H.F. Sharpe encouraged a more extensive rearing of fowls and recommended for them St. Vincent yams as a good feeding to alternate with corn. Messrs James F. Jones, Robert Samuels and Walker Lowers were elected members of the society. The meeting adjourned for the second Saturday in May.—F. P. ALEXANDER, Secretary.

***

St. George's, (Portland).—A meeting of the Committee of Management was held in the Court room on Saturday noon on the 12th April. Members present: Rev. W.J. Thompson, V.P. in the chair, Messrs W.G. Russel, A. P. Hanson, Agricultural Instructor, R.P. Dunn, J. Horn, E.E. Gray, Isaac Haase, R.A. Burgess and the Secretary. It was reported that the "Show Grounds Building Committee" had not yet met; discussion on the matter deferred. Applications from the Skibo and Fairy Hill Societies for affiliation were dealt with: application granted. The fees of these sub branches were paid. On account of the amount of clerical duties involved on the secretary, Mr T. N. Wynter was appointed assistant. The annual report of the Fairfield sub branch was presented; the report was discussed; it was considered to be an interesting document. The purchase of unripe cocoa pods was discussed and its relation to larceny; it was decided on the motion of Mr. W. G. Russell to write to the leading produce buyers to urge on their local buyers to reject immature cocoa pods. Mr. Hanson called attention to the difference in prices in the London market of fermented and unfermented cocoa. He wanted to know if more was paid for the fermented quality here. This question was sent to the firms purchasing produce in the district. Mr. Hanson delivered an address on the disease which affected the cocoanut trees, both the roots and the leaves; he gave it as his opinion, that the trees should be planted at least 40 feet apart. Messrs Robert Waller and S. J. Alexander were elected members of the society.—T.N. WYNTER, Assistant Secretary.

***

Dunsvale (Trelawny).—The annual meeting was held on the 12th April. Present: the president, in the chair, the vice-president, instructor, secretary and thirteen other members. Meeting was opened with prayer by the chairman, after which he gave a very interesting and encouraging address, in which he expressed his pleasure at being present at the

first annual meeting of the society, and congratulated the society on the holding of it. He further spoke on some of the most important subjects, as the water question, distribution of peas, etc., which had engaged the attention of the society during the year, and he was pleased with the general run of the society. He thought that the financial accounts submitted were in a healthy condition, and the fine balance in the treasurer's hands was a credit to the society. He also encouraged the members to do their best to keep the society living and progressing, The instructor next rose and congratulated the society on its achievements during the past year. He spoke at length, showing that although we had not got everything we struggled for, yet we should not be discouraged, but should continue agitating hopefully, and by so doing he anticipate a bright future for the district, and that we should do our best in promoting the upkeep of the society. At the request of the president, some of the members stated that the drought had greatly affected the cow peas, and to a smaller extent the black eye peas, but that the red peas was doing fairly well. A committee consisting of Messrs. Small, (convener) Reid, Anson, Fraser, Leslie, and Welsh, was appointed to keep track of the peas and report to the meeting in June. A penny bank was established in connection with the society, and the secretary was appointed manager, and the president G. Taylor and W. Fitz Ritson (the two latter if they agree) trustees of the bank. The president showed the importance of the "ticket-giving" in this district, He further showed the necessity of a kind of private hospital here, and which should be visited regularly by the D.M.O. After a lengthy discussion, it was moved by Mr. Anson, seconded by Mr. Miller, and agreed to, that a petition be drafted by the president and Mr. W. Fitz Ritson to the Governor, requesting the D.M.O. to pay regular visits to this district, On the election of officers, Rev. H. G. Clerk, Mr. R. S. Small, Mrs. Ruth Clark, and Mr. L. N. Welsh were unanimously re-elected president, vice-president, treasurer and secretary respectively to serve for another year. All the officers present returned thanks for the confidence reposed in them by the meeting. The election of a managing committee was deferred till next meeting. A hearty vote of thanks was presented by the president on behalf of the society to Mr. Harrison the instructor, for his very kind and valuable services to the society and district in general, through his regular visits and instructions. The instructor replied suitably. Nearly all the old members in good standing were re-enrolled, and a few others joined the society, making a total of 68. A few paid in their subscriptions for the ensuing year. It was agreed, on the motion of Mr. Harrison, seconded by Mr. Anson, to have a social at an early period in connection with the society, to mark the anniversary ; and a committee consisting of L. W. Welsh (convener) R. S. Small, T. James T. Fraser, C. Smart, and Mrs. Ruth Clark was appointed to manage it, A very bright meeting was brought to a close by the singing of the National Anthem. —L. N. WELSH, Secretary.

***

Castleton (St. Mary).—The annual meeting was held at the Castleton Presbyterian Church on Monday 14th April, at 5 p.m. Present : Rev. James Robertson, presiding, Messrs. A. Pickersgill, C. Tait, E. Kirkland, T. Baxter, A. E. MacKenzie, and Mrs. E. Deslundes, members of the society, and one visitor. The president called the meeting to order, and after reading extracts from an article in the Gleaner relative to the duties of a chairman, commented on the undue criticism of his actions by certain discontented members of the previous administration. He was, however, pleased to find that he had been supported by the majority of his colleagues, who had shown their appreciation of his services in the past by re-electing him as president of this society, and had decided to work in harmony with him for its advancement, the society now being in a fairly prosperous condition. Through the unavoidable absence of

the late secretary, who had the minute book, no minutes were read. Messrs. G. Tait, Wm. Baxter, and Miss Ida Rochester were on the recommendation of the treasurer that they had paid in their subscriptions, admitted as members. Messrs. S. Thomas, J. White, and J. Thompson, applied personally, and were also admitted. Six members of the board paid their subscriptions for the current year. The treasurer not having taken over the books and funds of the society from the late acting treasurer, was unable to present his report. Authorized Persons. Mr. A. Pickersgill was the only authorized person present. He stated that in his opinion the presence of a Justice of the Peace at Castleton, whose services would be available also to the residents of the adjacent districts, would aid materially in bringing praedial thieves to justice, as under existing conditions the distance to the nearest Justice of the Peace is too far, and the remuneration inadequate, for authorized persons to perform their duties satisfactorily. It was moved by Mr. S. C. Scott and seconded by the president that the other authorized persons be written to by the secretary, requesting their attendance and reports at the next monthly meeting. The secretary was instructed also to forward to the secretary of the parent society the affiliation fee and a list of registered members as early as possible. A letter was read from the instructor re his itinerary and rat poison. The secretary stated that he had a conference with the instructor (who had been busy during the past week visiting members' cultivations in spite of the inclemency of the weather) and received from him a supply of rat poison, some of which had been distributed already to a few of the members: those now requiring same could obtain it on application to him. The next was a memo from the secretary of the parent society, acknowledging receipt of list of members of the board of management of this branch. The secretary submitted the instructor's suggestions to change the date of the regular monthly meetings from the first Wednesday to the third Monday in every month. This was agreed to, and 3 p.m. fixed as the hour for beginning, as the instructor would be more regular in attendance, seeing that the three branches in this section of his district would then be holding their meetings during the same week. Three members gave orders for a copy each of the Sub-Officers' Guide. A committee consisting of Messrs. McKenzie, Scott, A. Pickersgill, C. Tait and Kirkland, three to form a quorum, was appointed to frame rules and bye-laws for the government of the society. The matter of a Justice of the Peace for Castleton was resuscitated, and it was decided to re-approach the Custos for this parish on the subject. Mr. Scott gave notice of motion for next meeting re the holding of a show; and the president re the advisability of members acquiring improved breeds of pigs and goats instead of depending almost solely on cocoa for a livelihood. Mrs. Deslandes submitted a letter from the Assistant Inspector of Poor for the Richmond district, re suspension by him of a registered pauper, Mary McLeary, of whom she is guardian. This was not considered a matter directly within the scope of the society, nevertheless the secretary was directed to communicate with the Inspector of Poor on the subject. The singing of the National Anthem brought the meeting, which was a record one, to a close.—A. E. MACKENZIE, Secretary.

* *
*

Enfield, (Saint Mary.)—The regular monthly meeting was held in the Schoolroom on the 16th April, 1913. The meeting was opened with prayer offered by the Chairman. The Secretary being sick the President acted as Secretary. The minutes of the last meeting were read, and Mr. Beckford moved the confirmation of them, which was seconded by Mr. G. W. Fox; the minutes were confirmed. The chief correspondence read, was a letter from the Parochial Board in reply to one sent to that body setting forth the distress then prevailing in the district. The chairman explained that the restriction of the Loan Bank, re the holding over all

documents until the full amount is repaid, has been removed, so far as our bank is concerned. Mr. Beckford spoke of the success up to now of the branch and urged members to continue to support it. The secretary sent in a special report of the year's working of the branch, which was read by the chairman. Mr. Fox moved that the report be printed in the next journal, which was agreed to by all present. The treasurer presented her accounts which showed a balance of 12/6 for the close of the financial year. The chairman moved a vote of thanks to the secretary for his work duriug the past year seconded by Mr. Beckford. He also moved a vote of thanks to the Vice presidents and treasurer and urged them to do all in their power to increase the membership of the society as well as to make it a financial success. He spoke briefly of the proposed Show unavoidably postponed last spring and suggested that same be held in August of this year. The election of officers for the current year took place: Rev. W. S. Taylor, President, T. R. Beckford and H. D. Sheriff, Vice-presidents, J.Z. Johnson, Secretary and Mrs. E. Heslop, Treasurer. More than 20 members have paid in their subscription for the New year. A vote of sympathy was moved for the secretary on account of his indisposition, by the chairman, seconded by Mr. Beckford and unanimously passed. After Roll call, there being no other business the meeting was adjourned after the singing of the Doxology. It is gratifying to state that the district is getting fairly well over the pinching hardships of the earlier months of the year. Cocoa pods are being sold at 5d per dozen, and though the crop is not so large as that of last year, yet the fairly good price makes up the difference; the season is very fine, nearly every day there is a shower. Vegetation is very pleasing.—J. Z. JOHNSON, Secretary.

ANNUAL REPORT:

The end of another year of our branch's career is reached, and as such I hereby undertake to give a brief review of what has been done by the branch during the year. I need not repeat to you that the year 1912 had been a peculiarly calamitous one. Yet with all its failures and set-backs we can report a fair amount of success. Our membership up the 31st March, 1913 stands at 97, the majority of whom have more or less attended our monthly meetings regularly. We have held 11 regular meetings and 4 Committee meetings. At the beginning of the year under review proposals were made for the holding of a local Show in connection with the branch. The necessary preliminary preparation for the holding of this show were fairly well on foot, but as we continued it became obvious that the show must be a failture, owing to the very critical financial position in which we were placed by the drought, and further increased by the storm of November last; hence it became neccessary to postpone it indefinitely, On the postponement of the show movements were at once set on foot to establish a Loan Bank in connection with our branch, and through the untiring efforts of our local Instructor coupled with the officers of our branch, a bank has been established, having Annotto Bay for its headquarters. It is highly gratifying to report that our bank is among one of the most successful of its kind; several members of the branch have already derived benefit therefrom. Through the influenc of our branch the District Post Office has been made a Parcel post office whereby our people can receive small parcels without much trouble. There are several other improvements that have been achieved mainly through the instrumentality of the branch. Although we have not yet wholly recovered from the hardship of the past still we are pulling very well through, and it is to be hoped that our members are going to make their first endeavour to increase our membership to 150 this year. Next, they are going to unite, and with a pull, a strong pull altogether, bring our postponed Show to a very successful issue. Wishing the branch continued success.—J. Z. JOHNSON, Secretary.

Guy's Hill (St. Mary)—The annual meeting was held at St. Georges School Room on Thursday, 17th April, 1913. In spite of rain the attendance was fair. Besides the President, Secretary and ten other members there were present W. Cradwick Esq., Agricultural Instructor, Rev. Williams of Linstead, Messrs S. B. Anderson, George Bryan, (junior) and Urq. Anderson, the last three of whom became mambers. The minutes of the last meeting were read and confirmed. The secretary gave a brief report of the past year's work and made as clear a statement of the financial condition of the society as he was able to do in the absence of the treasurer. The report was adopted and the officers were thanked for the service rendered. The election of officers for the new year was next taken up and resulted as follows: Mr. George Newbury, President, Messrs C. P. Bell and S. A. Martin, Vice-presidents. Mr. H. S. Allen, Treasurer, and Mr. W. E. Watson, Secretary. The meeting decided to deposit three pounds of the cash, balance in hand, in the Guy's Hill-Carron Hall bank. A letter from the secretary of the Parent society, re the road from Windsor Castle through Guy's Hill was read and the subject discussed. It was finally decided that the matter of pressing for the rolling of tho new parts of the road be deferred for the present. A letter from the Superintendent of the Government Printing Office together with copies of Law dealing with Cattle trespass was presented. The final decision was that another law—that dealing with the rate of charges for damage (if there is such a law) be obtained and all kept as the property of the society. Mr, Cradwick gave an instructive lecture on Cocoa and Banana diseases. He impressed on the meeting the need of careful selection of plants (notably banana) for propagation as the want of attention to this particular may lead to the introduction of disease into a cultivation which might otherwise not be affected. The instructor hopes the time is not far distant when the spraying of such trees as cocoa and coffee, as a means of keeping off disease will be more general. He arranged to visit Mr. Chas. Hay's cultivation on Friday at 8 o'clock and Mr. Watson's plot near the school at about 1 o'clock on the same day. Both arrangements were carried out and the demonstration at the latter place was attended by many of the members and others all of whom seemed interested in the instructive lesson given by Mr. Cradwick. Some Cocoa trees were treated and one dead coffee tree was uprooted and taken away by the Instructor for further examination.—W. L. Watson, Secretary.

***

Bluefields, (Westmoreland)—A meeting was held on the 17th of April 1913. The President, Rev. E. Leo Jones presided and there was a fair attendance of members; minutes of last meeting were read and confirmed. Matters arising from the minutes were dealt with, after which a lengthy discussion relative to the better working of the society took place. After expressing their views freely several members pledged themselves to use their influence in making the society what it ought to be. The secretary came in for a fair share of blame for the dormant state of the society but has again renewed his efforts, and the president expressed the hope of better times as he cannot be head of a society only in name. The instructor, Mr. Somerville was much pleased with the expression of better work from the branch and gave some useful hints how to make the regular meeting useful and interesting. The affiliation of the Content sub-branch was unanimously carried. This branch has 20 members and is working well. The following proposals were agreed on: (1) the getting of a large black boar from the Farm school; (2) that the meetings of the society be monthly on the 3rd Thursday in every month; (3) that the annual general meeting be held on the 22nd of May when the instructor hopes to be present. After the Agenda for the annual meeting was made a most enjoyable meeting ended.—T. A. Foxton, Secretary.

Southfield, (St. Elizabeth).—The regular monthly meeting was held in April 18th, 1913 and presided over by Rev. A. M. Smith. The following officers were elected for the year 1913–14: President, Rev. A. M. Smith, Vice-presidents, Rev. H. W. Cope and L. C. Hibbert, Esq., Secretary and Treasurer, J. J. Miller, Esq., Asst. Secretary, Miss I. C. Black. It was decided that the proposed formation of a Loan Bank be deferred to a future meeting and for one better attended. The year's report was read and adopted; the report reflect credit to the society. The Instructor advised the members to plant Irish potatoes on lines indicated. A grindstone and axle at a cost of 30/ was got for free use by the members of the society. Messrs E. J. Smith, R. July and the secretary were appointed to draft rules governing the use of the grindstone. A discussion on a proposed school at Bellevue to care for neglected children was held over till the meeting obtains more data about it.—J. J. Miller, Secretary.

Note: Weather and crops: Excellent season, excellent condition of growing plants; no strong wind.

***

Birnamwood, (Portland).—The annual meeting was held in the School room on the 19th April when there were present, Mr. R. Paulwell (in the chair), Mr. A. P. Hanson, Instructor, Rev. P. A. Conahan (visitor) and seventeen other members. The minutes of the last meeting were read and confirmed. The secretary reported that he had had no reply yet to the letter sent the hon. member for the parish accompanying the following resoultion adopted at the last meeting: That, "whereas, it was brought to the notice of the meeting that over fourteen years ago fifteen members of this branch society and resident agriculturists bought lands from the Government in the Smithfield run of Crown lands for Agricultural purposes; and whereas, up the present, notwithstanding different representation having from time to time been made to the Government these lands remian undeveloped for want of a road; and whereas, when these lands were purchased the purchasers were given to understand that a road would have been construeted through them." "Be it resolved, that the Government be urged to take immediate steps to open up a way into these lands or refund the purchasers their money." The secretary presented his annual report reviewing the work of the past year which showed the branch to be in vigorous activity. After some complimentary remarks by the chairman and instructor the meeting endorsed the report and requested the secretary to forward it to the Press for publication. The financial statement was presented and accepted. A good deal of discussion took place over the expenses of the Penny bank being charged to the account of the society's funds, and it was finally decided that as a set-off against such expenses all interests accruing on deposits in the said Penny bank be regarded as the property of the society in future. On the proposal of the chairman seconded by Mr. Lafeitte an honorarium was presented to the secretary as a token of the society's appreciation of his free services in connection with the branch and its auxiliaries. The "Authorised Persons" verbal reports were well received but they were advised to present written quarterly reports in future. Mr. Lafeitte moved, seconded by Mr. Dallas and unanimously agreed that Mr. Barclay be asked to have the journals sent to each member as formerly, and not in bulk to the secretary as is being done now. Mr. Hanson addressed the meeting on the preparation of cocoa for market, rearing of small stock and poultry, and the present "digging match" system of cultivation. The result of the election was as follows: President, Rev. P. A. Conahan, Vice-presidents, Messrs R. Paulwell and O. Maloney, Secretary and Treasurer, W P. Freckleton, Managing Committee, Messrs W. Savage, A. Savage, H. Thompson, J. Lafeitte, R. Johnson and the officers. Mr. Hanson moved a vote of thanks to the retiring officers and the meeting adjourned.—W. P. Freckleton, Hon. Secretary.